THE ECONOMIC IMPACT OF DEVELOPMENT: A CASE STUDY OF THE LITANI RIVER AND OTHER PROJECTS IN LEBANON

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DEDICATION

To my Brother, Ahmad
of whom I am very fond.

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PART I. THE ECONOMIC FRAMEWORK

CHAPTER I

THE NATURE OF THE STUDY

Introduction

In this era of conflicting ideologies and world-wide unrest, peoples of many of the so-called underdeveloped countries have become acutely aware of their social and economic ills. Through political, economic and technological changes wrought by two major wars, and through closer direct contacts and increased communications, they have learned much of the more progressive West. This new awareness has brought new ambitions. It has also brought frustration. Politically, there has been a marked growth in nationalism. Economically, the drive for development has been intensive. The problem is no longer whether to develop, but whether the capacities for development of these countries will be sufficient to satisfy ambitions and maintain political tranquility.

By Western standards, the economy of Lebanon is considered underdeveloped. Although the prosperity of Lebanon has been impressive in recent years, the sectorial pattern of growth has been distorted. The emphasis on the trade and services sector has had limiting effects on the growth of the industrial and agricultural sectors. Although in the short run the present pattern of growth has not proved harmful, it nevertheless has helped to confirm certain structural weaknesses of the economy. These weaknesses are (a) the vulnerability of the domestic economy to international changes in business and political activity, and (b) the accentuation of the inequalities in income distribution and living standards in Lebanon.

Correcting these structural weaknesses and imbalances in the Lebanese economy would require investment in the retarded sectors. The Government of Lebanon has recognized this problem and has committed itself to assuming a major role in its solution by conducting a public development program. Such a program includes power, water, and transportation projects which because of their technical nature or because of their unattractiveness to entrepreneurs have not received adequate attention from the private sector.

The problem of executing development projects is essentially a problem of proper utilization of available financial and physical resources. Only insofar as financial resources lead to the mobilization of real resources for implementation of projects do they serve the ultimate aims of development. These aims are sustained growth of output and income in an atmosphere of relative financial stability.

Statement of the Problem

This study focuses attention on the problem of the feasibility and advisability of the developmental program designed for Lebanon with particular emphasis on Phase A of the Litani River Project. This development program is oriented entirely toward the provision of "social overhead capital"[1] and the responsibility for its execution has been assumed by the Lebanese government.

Broadly, the questions that should be given serious consideration in connection with the launching of the development projects in Lebanon are these: Are the projects essential from the economic and social points of view? What are the financial and physical requirements? Can these requirements be met? Will the effects during the period of construction be favorable or unfavorable? What reforms, if any, are necessary to ensure the effective utilization of available resources and to mitigate any unfavorable effects during the development period?

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[1] Ragnar Nurkse, Problems of Capital Formation in Underdeveloped Countries (Oxford: Basil Blackwell, 1953), pp. 152-154 and passim.

The scope of this study will necessarily be limited to the financial and economic aspects of launching development projects. Socio-political elements will be taken into consideration only to the extent that they contribute to the understanding of the problems of this study.

Purposes, Procedure, and Sources of Data

Specifically, the purposes of this study are: (1) to compare project requirements with potentially available supplies, financial and economic; (2) to analyze the developmental effects of projects on the economy of Lebanon during the period of construction, particularly on the national income, prices and wages, and balance of payments; and (3) to suggest corrective monetary, fiscal, and trade policies to mitigate adverse developmental effects which we may conclude can be anticipated.

A rational policy of public expenditures on development projects must necessarily take account of the actual and potential performance of the economy as a whole. It is desirable, therefore, if valid conclusions are to be reached, first to survey the more important sectors of the Lebanese economy. With this purpose in mind, Chapters II and III of this study will be devoted to such a survey with the view of gaining some insight into the development potentials of the Lebanese economy. These chapters will also indicate the need for the development program.

A detailed description of the features and the economic significance of Phase A of the Litani Project together with a discussion of the economic and social significance of other projects will be presented in Chapter IV.

The availability of resources for project implementation will be assessed in Chapter V. The financial requirements will be discussed in Chapter VI. The monetary system and government finances will be discussed in Chapter VII. The various means of domestic and foreign financing will be considered in Chapters VIII and IX. The developmental effects of the projects on national income, prices, wages, and the balance of payments will be analyzed in Chapter X. Chapter XI will deal with the use of monetary, fiscal, and trade policies to mitigate undesirable effects of development and will offer suggestions for reforms. Finally, the main ideas of the study will be summarized in Chapter XII and conclusions based on the findings will be made.

Because of its enormous irrigation and power development possibilities, the Litani River has always been foremost in the attention of technical and economic missions visiting Lebanon for development studies. The United Nations Survey Mission to the Middle East, Sir Alexander Gibb, the United States Agricultural Mission, the Electricité de France, and the United States Point Four Mission have all prepared studies for the development of this river basin. Three separate studies on the Litani River have also been made by prominent Lebanese engineers.

It is not necessary for the purposes of this study to review these reports. It is sufficient to point out that the U.S. Operations Mission's Report, even though itself not completely adequate, took into account the other studies mentioned above. For purposes of this study, all the data on the Litani Project are taken from the investigative work of the U.S. Mission and from information secured from the National Litani Office in Beirut. All the information concerning development projects other than the Litani are taken from official Lebanese Government publications and from U.S. Government sources.

In addition to the Point Four Report, this study draws on a wide selection of materials including books and periodicals; official documents of the United States and Lebanese Governments; and documents of the United Nations.

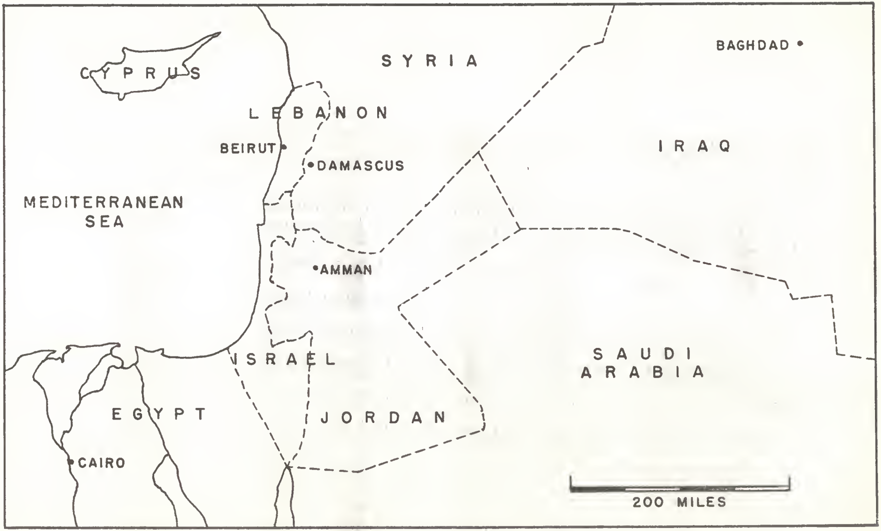

FIG. I LEBANON IN THE MIDDLE EAST

Source: Life, Vol. 45, No. 5 (August 4, 1958), p. 2. Used by permission.

CHAPTER II

SURVEY OF THE LEBANESE ECONOMY

The Land and Population

Geography

Lebanon is a small republic situated at the eastern end of the Mediterranean Sea with an area of approximately 4,000 square miles. Its length, in a north-south direction, is about 118 miles and its maximum width is about 47 miles. On the north and east, Lebanon is bordered by Syria, on the south by Israel, and on the west by the Mediterranean Sea.

The country consists of a narrow coastal strip, a renge of mountains (the Lebanon, with maximum elevation of over ten thousand feet), an inner plain (the Bekaa), and a second renge of mountains (the Anti-Lebanon) which form the boundary with Syria. A relatively mild Mediterranean-type climate with dry summers and wet, cool winters preveils in Lebanon. Rates of average annual rainfall very from 28 inches in the Bekaa Valley to 34 inches on the coast and 60 inches at the top of the Lebanon Mountains. Rainfall is concentrated during the months of December, January, and February.[1]

Population

The last official census for the country was taken in 1932. The only available figure on this census is the total number of people. No data were provided on the composition, age structure, and other relevant characteristics pertaining to population.

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[1] Data on geography and climatology of Lebanon are taken from U.S. Foreign Operations Administration, Development Plan for the Litani River Basin, Republic of Lebanon, Volume I, General Description and Economic Analysis (Denver: U.S. Bureau of Reclamation, 1954). This and other volumes of the Foreign Operations Administration report on the Litani River will be referred to hereafter as FOA Report.

Table 1 presents population estimates for the years, 1947-1957, as well as for the census year of 1932. However, it does not make possible an adequate analysis of the Lebanese population. First, demographic data are inadequate and are at times non-existent. The data presented in Table 1 are not from common source and are inconsistent. The existing registration of births and deaths, though published by the Ministry of National Economy, suffers in large measure from being incomplete; thus, in Table 1, the reported number of births for the years 1955 and 1956 represents such a divergence from immediately preceding years as to cast strong doubts as to the accuracy of the series. The reported number of annual deaths presents a consistent series through the years covered in Table 1. The resulting natural increase in annual figures, however, can hardly explain the reported annual increase in total population for the years for which such figures are available. Secondly, data on emigration are inadequate and there is almost a complete absence of immigration data. These two factors make it difficult to verify the difference in rates of increase in population from year to year.

According to estimates made by the United Nations Relief and Works Agency for Palestine Refugees, the population of Lebanon amounted to 1,353,000 in 1953. Lebanon, therefore, with a population of 338 persons per square mile, is more densely populated than any other country of the Arab world except the Nile Valley of Egypt.[1]

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[1] United Nations Relief and Works Agency for Palestine Refugees, Quarterly Bulletin of Economic Development, No. 11 (Beirut: July, 1954), p. 112.

TABLE 1

POPULATION, VITAL AND EMIGRATION STATISTICS OF LEBANON, 1932, 1947-1957

Year	Population[a]	Births[b]	Deaths[b]	Natural Increase		Emigration[c]	Net Increase	
	Number	Number	Number	Number	Rate/Thousand	Number	Number	Rate/Thousand
1932	859,693	n.a.	n.a.	n.a.	--	1,646	--	--
1947	1,185,145	25,462	6,554	18,908	15.94	n.a.	44,400	37.52
1948	1,229,545	32,081	7,450	24,641	20.02	n.a.	17,035	13.85
1949	1,246,580	22,613	6,711	15,902	12.75	n.a.	20,999	16.84
1950	1,267,579	28,953	9,714	19,239	15.17	n.a.	36,361	28.68
1951	1,303,940	30,553	6,202	24,351	18.67	4,077	20,274	15.54
1952	1,321,000	31,821	7,712	24,109	18.20	2,725	17,060	12.91
1953	1,353,000	34,070	7,257	26,813	19.92	3,315	30,000	22.17
1954	1,383,000	39,571	7,408	32,163	23.49	4,026	42,000	30.36
1955	1,425,000	66,319	12,304	54,012	38.65	4,555	25,000	17.54
1956	1,450,000	62,008	8,043	53,965	37.21	3,288	75,000	30.34
1957	1,525,000	n.a.	n.a.	n.a.	--	n.a.	n.a.	--

Source: [a]1932, 1947-51: Bulletin Statistique Trimestriel, II (Quatrieme Trimestre, 1951), 70. Beirut.

1952-1957: United Nations, Statistical Yearbook(s), 1954, 1955, 1956, 1957 (New York: 1954, 1955, 1956, 1957), pp. 27, 29, 30, 25.

[b]Bulletin Statistique Trimestriel, VIII (Quatrieme Trimestre, 1957), 31. Beirut.

[c]1932: George Haddad, Fifty Years of Modern Syria and Lebanon (Beirut: Dar-al-Hayat Press, 1950), p. 19.

1951-1956: Bulletin Statistique Trimestriel, II (Quatrieme Trimestre, 1951), 28 (for 1951); III (Quatrieme Trimestre, 1952), 28 (for 1952); IV (Quatrieme Trimestre, 1953), 30 (for 1953); V (Quatrieme Trimestre, 1954), 30 (for 1954); VI (Quatrieme Trimestre, 1955), 30 (for 1955); and VII (Quatrieme Trimestre, 1956), 30 (for 1956). Beirut.

Lebanon's population is rising at a rapid pace. Total population is estimated at 1.5 million in 1957 or over 1.7 times the 1932 population of about 860,000. (See Table 1.) The annual average rate of increase in population between 1947 and 1956 is about 22.0 per thousand. If emigration had not exceeded immigration during this period, the rate of increase would have been higher.

Emigration.--Emigration has taken place from Lebanon for several generations and reflects the daring spirit (or migratory tradition) of the people and the paucity of resources. While no complete data on emigration exist, several estimates have been made. It has been estimated that, between 1860 and 1900, about 120,000 persons emigrated from Lebanon and Syria--an average of 3,000 a year--of whom over half were from Lebanon.[1] In 1900-1920 the annual average rose to 15,000.[2] From 1922 to 1947, emigration from Lebanon was estimated at 400,000 or an annual average of 12,000.[3] Immediately after World War II, the annual movement averaged 3,000 persons.[4] Emigration for the period 1951-1956 totalled 21,986. (See Table 1.) This figure assumes greater importance when one bears in mind that 74 per cent of the emigrants were between the ages of 15 and 44. In recent years, emigrants have gone mostly to Brazil, Australia, and the Arabian Peninsula.[5]

Immigration.--Immigration consists mainly of foreign nationals who intend to return to their country. These immigrants are concerned with commercial, missionary, and philanthropic activities. According to figures compiled by the "Surete Generale" in Lebanon and published by the Ministry of National Economy,[1] the number of foreign nationals in Lebanon in January, 1954, totaled 18,424 persons, 80 per cent of whom were living in the Beirut area. Over half (58 per cent) of the foreign residents were classified as either under the age of 15 or persons without any specific profession. The largest single nationality was the French (3,006 persons), followed by the British (2,328 persons), and the Americans (1,901 persons).

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[1] S. B. Himadeh, *The Economic Organization of Syria* (Beirut: American Press, 1936), 16.

[2] *Ibid*., p. 16.

[3] Gabriel Menassa, *L'Economie Libanaise et la Reforme de l'Etat* (Beirut: Imprerie Catholique, 1948), p. 400.

[4] *Le Commerce du Levant* (Beirut) October 9, 1954.

[5] *Ibid*.

In addition to the foreign nationals residing in Lebanon, there were (1955) about 50,000 naturalized Armenians in the country.[2] This latter figure is included in the total population of Lebanon in Table 1.

Since 1948 the country has experienced a sudden influx of Arab refugees from Palestine. According to the United Nations Relief and Works Agency the number of registered Palestinian refugees totalled 103,625 as of October, 1955. A breakdown of the number of refugees in Lebanon by district is presented in Table 2.

Rural and urban population and religious affiliation.--No official breakdown of the population into rural and urban is available, but recent estimates indicate the total population in 1953 was divided into 40 per cent urban and 60 per cent rural.[3] There is no reason to think

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[1] Bulletin Statistique Trimestriel, V (Deuxieme Trimestre, 1954), 61-65.

[2] Banque Libanaise pour le Commerce, Economic Bulletin, No. 26 (Beirut: April, 1956), p. 2.

[3] United Nations Relief and Works Agency for Palestine Refugees, op. cit., p. 128.

TABLE 2

NUMBER OF REGISTERED PALESTINIAN REFUGEES IN LEBANON BY DISTRICT, 1955

District	Number
Beirut	16,286
Bekaa	7,410
Mount Lebanon	20,396
South Lebanon	47,847
North Lebanon	11,686
Total	103,625

Source: United Nations Relief and Works Agency for Palestine Refugees, Basic Statistics of UNRWA Assistance to Palestine Refugees (Beirut: 1956), p. 1. (Mimeographed)

that this pattern has changed significantly since 1953. Equally as important as the rural-urban classification of the population is the one based on religious classification. The religious groups in 1955 represented: Christians (54 per cent); Muslims (44 per cent); and Jews (2 per cent).[1] Members of Parliament, who number 66, are elected by the people with proportional representation based on religious affiliations.

Natural resources

The most important natural resources of Lebanon are its location and its water supply. The location, at the crossroads of three continents, is the principal reason why this tiny country has been able to achieve one of the highest levels of per capita income in Asia and Africa.[2] This location enables the Lebanese to act as middlemen for the transhipment of goods, and places them in an extremely favorable position to serve as financiers not only for the Middle Eastern countries, but also for other countries of Asia and Europe. This is as true today as it was in a former day when ancient Phoenicia with its Sidon and Tyre was at the crossroads of world commerce.

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[1] Banque Libanaise pour le Commerce, Economic Bulletin, No. 26 (Beirut: April, 1956), p. 2.

[2] See Table 5, p. 21.

The location of Lebanon is also responsible for its large income from tourism. The climate is mild and the proximity to sea and mountains is enticing to vacationers from Europe and the Middle East. Furthermore, the country is ideally situated to attract and benefit from tourists enroute to and from the Holy Lands of both the Christian and Muslim faiths.

The water resources, with the exception of the seashore, are largely undeveloped. It is with these that the Litani Project and many of the other development programs are concerned. The development of the water resources should provide water for irrigation, power for consumer and industry, and water to improve the health standards of large segments of the population.

While it is true that adequate studies of the country's mineral and metal resources have not been made, it is safe to say that they do not abound. While about 70 per cent of the land is mountainous and much of it rocky, these provide abundant quantities of building stone and aggregates.[1] Any development program should be designed to make maximum use of the natural resources available.

Labor

Of a population estimated at 1,268,000 in 1950, about 357,000 were classified as "economically active" (Table 3). These estimates,

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[1] Alexander Gibb, The Economic Development of Lebanon (London: 1948), pp. 81-82.

TABLE 3

DISTRIBUTION OF ECONOMICALLY ACTIVE MALE POPULATION IN LEBANON BY OCCUPATION, 1950[a]

Type of Activity	In Thousands		Per Cent
A. Agriculture:		185[b]	52
1. Owner-Cultivator	115		
2. Hired-Hand	70		
B. Industry:		33.3[c]	9
1. Mechanized Industry	23.3		
2. Handicrafts	10.0		
C. Construction:		10.0[d]	2
1. Engineers and Contractors	1.0		
2. Wage Earners	9.0		
D. Trade, Finance, and Insurance:		65.0[e]	18
1. Independents or Employers	30.0		
2. Employees	35.0		
E. Services:		19.0[f]	5
1. Establishments and Independents	2.3		
2. Salaried	16.7		
F. Transportation:		20.0[g]	6
G. Government:		25.0[h]	8
1. Salaried	10.0		
2. Wage Earners	15.0		
TOTAL		357.3	100.0

[a] Excluded: all under the age of 12 and over the age of 51.

Source: b Elie Gannage, "La Redistribution des Revenus au Liban," *L'Economie Libanaise et le Progres Social* (Beirut: Editions les Lettres Orientales, 1956), p. 193; c, d, e, and h were secured from Mr. K. Sanbar, formerly of the International Bank for Reconstruction and Development and now Assistant Manager of the First National City Bank of New York, Beirut Branch. f and g Albert Badre, "National Income of Lebanon," *Middle East Economic Papers, 1956* (Beirut: American University of Beirut, 1956), pp. 24, 28.

the only ones available which give a breakdown of the male labor force by occupation, exclude all over the age of 51 and below the age of 12. These figures seem, therefore, to underestimate the labor force (number of people actually economically occupied) in Lebanon. They are significant, however, for giving some idea of the nature of the Lebanese economy and the distribution of the labor force. Especially important is the small proportion, about 11 per cent, engaged in industry and construction.

These estimates of the size of the labor force were confirmed by the United States ICA Mission to Lebanon. In a 1957 report, the labor force, excluding that part engaged in agriculture, was estimated at about 175,000 in 1956.[1] This report also states that about 50 per cent of the economically active population is engaged in agriculture. To this domestic labor force should be added some of the Palestinian refugees that are of working age.

The United States Department of Commerce states that "unskilled labor and white collar workers including those engaged in the professions are relatively plentiful."[2] This estimate of a plentiful supply of unskilled labor is substantiated by recent studies of Edmund Asfour.

> Estimates of unemployment among the Lebanese population vary between 30,000 and 40,000 or roughly between 10 and 15 per cent of working population. These figures take no account of disguised unemployment and underemployment which are so potently obvious both in towns and villages.[3]

Unfortunately, no data are available which classify unemployment in urban and rural areas nor as to skilled and unskilled labor. The estimates of 30,000 to 40,000 unemployed include both skilled and unskilled workers. It is not possible to determine the availability of this labor force to meet the requirements of the development program.

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[1] U.S. Operations Mission to Lebanon, 1957 Progress Report (Beirut: Catholic Press, 1958), p. 96.

[2] U.S. Department of Commerce, Marketing Potentials in Lebanon (Washington, March, 1958), p. 5.

[3] Edmund Asfour, "Industrial Development in Lebanon," Middle East Economic Papers, 1955 (American University of Beirut, 1955), p. 1.

There is some evidence that the supply of skilled labor may be limited. The United States Department of Commerce states that a shortage exists in certain categories, such as construction workers, mechanics, and industrial workers.[1] This shortage may be local rather than general because of the immobility of workers. Many of the skilled laborers live in rural areas and often refuse to leave their home village for work elsewhere. Further evidence of the shortage, at least of a local nature and in some categories of skills, is found in the increase of wages of skilled workers. Ordinarily the wages of skilled workers vary between LL7 and LL12 per day.[2] It was reported, however, that in some localities, workers engaged in reconstruction following the recent earthquake damages received LL25per day. This increase was primarily the result of a demand for skilled labor in excess of the local supply. In Spite of the large wage increases, it was necessary to import skilled foreign labor, particularly masons from Egypt.

> When the [National Reconstruction] Office started to rebuild the damaged homes, wages for masons increased at an unprecedented rate, reaching in some localities LL25 per day. . . . The problem was further aggravated by the refusal of some masons to work away from their homes or villages. . . . In order to alleviate the situation, to speed up operations, and to prevent a rise in wages, the Office saw fit to rely on imported masons from Egypt.[3]

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[1] United States Department of Commerce, op. cit., p. 5.

[2] Information secured from Ministry of Public Works, Beirut, by letter dated June 10, 1957. LL is the monetary unit of Lebanon.

[3] Republic of Lebanon, National Reconstruction Office, First Annual Report (Beirut: August, 1957), p. 73. Arabic,

National Product and Capital Investment

The productive capacity of Lebanon can perhaps be ascertained by discussing some aspects of national product. Statistics on the net domestic national product of Lebanon for 1950-1956 are presented in Tables 4 and 6. These data demonstrate the relative importance of the various sectors in the overall income. They also bring out certain peculiar features of the economy of Lebanon. The choice of the period (1950-1956) is by no means arbitrary; it is the only period for which a continuous series of aggregate and relatively reliable income data are available.

Growth of the economy

As can be seen from Table 4, the economy has continued to expand at a noticeable rate. Net domestic national product at current prices rose from LL1,023 million in 1950 to LL1,465 million in 1956, an increase of 43.2 per cent. This increase in net national product can be viewed substantially as an increase in real income. By deflating the aggregate figures by the wholesale price and cost of living indices respectively and adopting 1950 as a base year, real income shows an absolute increase in 1956 over 1950 of 41.7 per cent and 37.7 per cent respectively. The annual compounded rate of growth is 5.58 per cent and 5.48 per cent respectively.

Per capita income

Data on absolute levels of per capita national product and rate of growth per capita for the period of 1950-1956 are presented in Table 4. The annual average per capita national product at current prices for this period amounted to LL866. The table shows that even after accounting for a rate of increase in population of 22 per thousand,

TABLE 4

NET DOMESTIC NATIONAL PRODUCT OF LEBANON IN AMOUNT, BY TYPE OF INDUSTRY, IN PER CAPITA INCOME, AND IN RATE OF INCOME GROWTH, 1950-1956

(In millions of LL unless specified)

Category	1950	1951	1952	1953	1954	1955	1956
1. Trade	286	337	333	344	350	388	434
2. Agriculture	207	211	216	221	226	253	284
3. Industry	137	135	137	139	141	156	174
4. Ownership of buildings	96	97	98	101	104	116	130
5. Services	100	103	106	109	113	126	144
6. Construction	42	35	40	40	41	46	51
7. Government	72	64	64	71	73	83	95
8. Transport and Communications	36	46	50	62	63	72	81
9. Finance and Insurance	47	43	46	50	56	63	72
10. Total Net National Product[a]	1,023	1,071	1,090	1,137	1,167	1,303	1,465
a. Wholesale Price Index[b] (1950=100)	100	126	114	103	95	96	101
b. Cost of Living Index[b] (1950=100)	100	108	108	101	96	98	104
c. Real Net National Product (10/a)	1,023	850	956	1,104	1,228	1,357	1,450
c1. Real Net National Product (10/b)	1,023	992	1,009	1,126	1,216	1,330	1,409
d. Population, Thousands[c]	1,268	1,304	1,321	1,353	1,383	1,425	1,450
Per Capita Income in LL at Current Prices (10/d)	807	821	825	840	844	914	1,010
Real Per Capita Income in LL (10/a/d)	807	652	724	816	888	952	1,000
Real Per Capita Income in LL (10/b/d)	807	761	764	832	879	933	972
Percentage Rate of Growth at Current Prices[d]				6.17			
Percentage Rate of Growth (10/a)[d]				5.58			
Percentage Rate of Growth (10/b)[d]				5.48			
Percentage Rate of Growth per Capita at Current Price				3.81			
Percentage Rate of Growth per Capita (10/a/d)[d]				3.64			
Percentage Rate of Growth per Capita (10/b/d)[d]				3.19			

Source: [a]1950: Albert Badre, "The National Income of Lebanon," Middle East Economic Papers, 1956 (Beirut: American University of Beirut, 1956), p. 13.

1951-1956: United Nations, Yearbook of National Accounts Statistics, 1958 (New York: 1959), p. 139.

[b]Bulletin Statistique Trimestriel, IX (Deuxieme Trimestre, 1958), 33-34.

[c]Table 1, p. 10.

[d]The rates are annual averages compounded arrived at by using the following formula:

$$r = \sqrt[N]{\frac{Pn}{Po}} - 1$$

where: r = the rate of increase or decrease per year;
N = the number of years;
Po = amount at end of period;
Pn = amount at beginning of period.

the increase in real per capita national product between 1950-1956 amounted to 23.9 per cent as measured by the wholesale price index and 20.4 per cent as measured by the cost of living index. These figures amount to an annual compounded rate of growth of 3.64 per cent and 3.19 per cent respectively.

International comparisons of income are subject to serious limitations owing to (1) the differences in concepts and institutional arrangements, (2) the crudeness of the available estimates in local currencies for many countries, (3) the difficulties of converting the estimates into common currency. Data on the annual average per capita national product for 1952-1954 for 54 countries are presented in Table 5. The data are reasonably adequate for purposes of making broad comparisons of per capita income levels for the countries covered, indicating the disparities between the underdeveloped and the developed countries.

The per capita national product of Lebanon is the fourth highest in Asia and Africa, being exceeded by Israel, Malaya, and the Union of South Africa.

Significant features of net national product

The relative importance of the individual sectors to the net national product is demonstrated by the data in Table 6. This percentage breakdown demonstrates that during the period for which data are available there were no important changes in the percentage contribution of each sector.

The high proportion of income earned in the trade and finance sectors (over a third), is one significant feature of the national product. In general, this factor is due to the preponderance of the production of services over the production of goods. This pattern is no accident;

TABLE 5

ESTIMATES OF PER CAPITA NET NATIONAL PRODUCT OF 54 COUNTRIES EXPRESSED IN US DOLLARS: ANNUAL AVERAGE 1952-1954

(At factor cost)

Range in US dollars	AFRICA		AMERICA		ASIA		EUROPE		OCEANIA	
	Country	Per capita	Country	Per capita	Country	Per capita	Country	Per capita	Country	Per capita
Over 1000			United States	1870			Switzerland	1010		
			Canada	1310						
750-1000							Sweden	950	New Zealand	1000
							Luxembourg	890	Australia	950
							Belgium	800		
							United Kingdom	780		
							Iceland	780		
							Denmark	750		
500-749			Venezuela (a)	540			France	740		
							Norway	740		
							Finland	670		
							Germany	510		
							Netherlands	500		
250-499	Union of South Africa	300	Argentina	460	Israel	470	Ireland	410		
			Puerto Rico	430	Malaya(a)	310	Austria	370		
			Chile	360	Lebanon	260	Italy	310		
			Cuba	310						
			Colombia	250						
			Panama	250						
Under 250	Egypt	120	Brazil	230	Turkey	210	Greece	220		
	Rhodesia and Nyasaland	100	Mexico	220	Japan	190	Portugal	200		
	Belgian Congo	70	Jamica(a)	180	Philippines	150				
	Kenya	60	Dominican Republic	160	Ceylon	110				
	Uganda	50	Guatemala	160	Korea	70				
			Ecuador	150	Pakistan	70				
			Honduras	150	India	60				
			Paraguay	140	Burma	50				
			Peru	120						

(a) 1952.

Source: United Nations, Per-capita National Product of Fifty-five Countries: 1952-54 (New York: 1957), p. 7.

TABLE 6

PERCENTAGE CONTRIBUTIONS OF VARIOUS SECTORS TO NET DOMESTIC NATIONAL PRODUCT IN LEBANON, 1950-1956

Sector	1950	1951	1952	1953	1954	1955	1956
Trade	27.9	31.4	30.5	30.2	30.0	29.8	29.6
Agriculture	20.2	19.7	19.8	19.4	19.4	19.4	19.4
Industry	13.4	12.6	12.6	12.2	12.1	12.0	11.9
Ownership of buildings	9.4	9.1	9.0	8.9	8.9	8.9	8.9
Services	9.8	9.6	9.7	9.6	9.6	9.7	9.8
Buildings and Construction	4.0	3.3	3.7	3.5	3.5	3.5	3.5
Government	7.0	5.9	5.9	6.3	6.3	6.4	6.5
Transport and Communication	3.5	4.3	4.6	5.5	5.4	5.5	5.5
Finance and Insurance	4.6	4.0	4.2	4.4	4.8	4.8	4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Based on Table 4, p. 19.

it results from the country's poverty in natural resources and its advantageous geographical location. An energetic people have, from necessity, become tradesmen, and tradition has furthered this development. The international outlook which characterizes the population is reflected in the presence of Lebanese in many countries and in their fluency in foreign languages. Trading communities have been established in the many host countries, and these have created commercial and financial links with Lebanon.

Because of the preponderance of trade as a source of national product, the ability of Lebanon to support a development program depends to a large extent on a continued favorable position in the field of trade. This is all the more true because most of the goods Lebanon handles are not its own products. Available statistics for 1952 and 1953 indicate that about 70 per cent of the income of the trade sector originated in foreign trade (imports, exports, transit, and entrepot). Of the total contribution to the foreign trade sector, exports accounted for only about 1 per cent.[1] Commodity production in the sectors capable of producing exportable goods (except construction materials) is low. Industry and agriculture combined produced less than one third of the national product during the period 1950-1956, and only a small proportion of the products was actually exported.

The predominantly service character of the economy means that many of the physical requirements for economic development (some construction materials excepted) must be imported.

Saving and investment

Two other characteristics of the net national product are important for this study. The first of these concerns savings and the second investment. While no data of total savings in Lebanon are available, some indication of its magnitude and source may be derived from a recent survey.[1] According to the conclusions of this study, a large proportion of incomes in Lebanon go for personal consumption, leaving, therefore, a small proportion for savings. Estimates of the pattern of consumption and saving, which are the first of their kind for Lebanon and which are preliminary, indicate that

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[1] International Bank for Reconstruction and Development, The Current Economic Position and Prospects of Lebanon (Washington: 1956), p. 10.

> At least half of all Beirut households spend more than 50 per cent of their income on food alone. . . . Ninety-four per cent of the Beirut families reported no savings for the previous year. . . . In the top income bracket, 2.7 per cent of the families contributed approximately 84 per cent of total savings.[2]

The survey also pointed out that other urban areas (Sidon and Tripoli, for example), "would have a lower concentration of wealth than Beirut,"[3] and, consequently, people of these other urban centers would spend proportionately more of their income on food.

The other characteristic of net national product which has significance for this study concerns not only the magnitude of investments but also its direction. Investment, as indicated in Table 7, was between 12 and 16 per cent of net national product for the period under consideration. Compared with other underdeveloped countries, this percentage is high.[4] This level of investment seems to conflict with

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[1] Economic Research Institute, American University of Beirut, Urban Survey Study, 1954 (Beirut: 1955). Extract from U.S. Department of Commerce, Marketing Potentials in Lebanon (Washington: March, 1958), pp. 3-4.

[2] Ibid.

[3] Ibid.

[4] The ratios of net capital formation to net domestic product for a few underdeveloped countries were as follows: India, 7(1953); Pakistan, 6(1953); Philippines, 6.4(1952); and Ceylon, 5(1953). W.W. Rostow, "The Take-off into Self-Sustained Growth," The Economic Journal, LXVI (March, 1956), 36.

TABLE 7

NET DOMESTIC NATIONAL PRODUCT AND CAPITAL INVESTMENT IN LEBANON, 1950-1956

(Millions of LL)

National Product and Nature of Investment	1950	1951	1952	1953	1954	1955	1956
Net National Product[a]	1,023	1,071	1,090	1,137	1,167	1,303	1,465
Capital Investment[b]	160	131	150	155	165	206	225
Public	30	18	22	23	25	49	49
Private	130	113	128	132	140	157	176
	- - - - - - - - Percentage Distribution - - - - - - - - -						
Percentage Capital Investment of Net National Product	15.6	12.2	13.8	13.6	14.1	15.8	15.4
Percentage Public of Total Investment	19	14	15	15	15	24	22
Percentage Private of Total Investment	81	86	85	85	85	76	78
Total Investment	100	100	100	100	100	100	100

Source: [a]Based on Table 4, p. 19.

[b]1950-1951: International Bank for Reconstruction and Development, The Current Economic Position and Prospects of Lebanon (Washington: 1956), p. 3.

1952-1956: United Nations, Economic Developments in the Middle East, 1956-1957 (New York: 1958), p. 69.

conclusions stated above with respect to consumption.

This apparent discrepancy can be explained by the fact that a large part of investment is not financed out of domestic national product but from the remittances of emigrants and from capital transfers from the oil region of the Middle East.[1] The magnitude of the emigrants' remittances and capital transfers can be brought into sharper focus if we consider the size of the accumulation of gold and foreign exchange by the official as well as by the private sectors. The net additions to official foreign assets amounted to LL44 million, LL56 million, and LL35 million for the years 1953, 1954, and 1955 respectively.[2] Net additions to the private Lebanese holdings of gold can be ascertained by the magnitudes of net gold imports in recent years, after making an adjustment for the share of the official sectors in these imports. (Cf. Tables 16, 18, and 34.) The total holdings of foreign exchange by the private sector are not known. As reported by the New York Federal Reserve District, however, the private Lebanese holdings in that district amounted to $22.3 million at the end of 1956.[3]

A large part of the national product goes to "a privileged few."[4] This distribution of income makes possible a greater volume of domestic savings than the survey quoted above would imply. It is probable that savings are accounted for by the few who are in the high income groups and by the Government. This distribution of income may be regarded, as far as national savings go, as a blessing in disguise.

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[1] Albert Badre, "Le Revenu National au Liban," L'Economie Libanaise et le Progres Social (Beirut: Editions les Lettres Orientales, 1956), p. 29.

[2] See Table 34, p. 142.

[3] Federal Reserve Bulletin, Vol. 44, No. 6 (June, 1958), 725.

[4] Paul Klat, "The Future of Economic Development in the Arab World," Middle East Economic Papers, 1956 (Beirut: American University of Beirut, 1956), p. 58.

It is not only the total investment which is significant for this study but also the direction of investment. Investment is embodied in concrete things and not all of them equally increase productive capacity. As the data in Table 8 show, about half of investment was directed toward building construction, whereas investment in agriculture and industry was minor.

TABLE 8

DIRECTION OF INVESTMENT IN LEBANON, BY COMPONENT CLASSES, 1950-1954

(Millions of LL)

Type of Investment	1950	1951	1952	1953	1954
Public	30	18	22	23	25
Private	130	113	128	132	140
Building Construction	74	56	69	69	71
Industry	23	15	15	15	15
Agriculture	12	14	15	17	20
Services	13	14	14	15	16
Transportation	8	14	15	16	18

Source: International Bank for Reconstruction and Development, The Current Economic Position and Prospects of Lebanon (Washington: 1956), p. 3.

Agriculture

Land use

Translated into terms more meaningful for this study, the 4,000 square miles which make up the land area of Lebanon are equivalent to approximately 1,017,000 hectares.[1] Data on land and land use are presented in Table 9. It must be pointed out that the term "forests" referred to in the table should be accepted with caution. There are in reality no forests in Lebanon of merchantable saw timber. Reforestation is badly needed to check soil erosion and produce more wood for the nation's economy. At present, Lebanon imports almost all its wood requirements.

The total number of hectares under cultivation was estimated at 271,000 in 1954. At that time it was estimated that there were 180,000 hectares of additional land which was considered suited to cultivation. From 1954 to 1957 land under cultivation increased by only 7,000 hectares;[2] therefore, about 173,000 hectares potentially suited to cultivation were not then productive.

In order to bring the potentially productive land under cultivation, extensive terracing is necessary. Irrigation, involving the provision of the needed water and an extensive pumping system to lift the water to higher levels, will be required. The expenses involved in these projects are beyond the financial ability of the individual farmer.

The ratio of cultivated land to population is low. It was estimated in 1954 to be less than 0.20 hectares per capita. Even with the

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[1] One hectare is equal to 2.471 acres.

[2] Food and Agricultural Organization of the United Nations, Production Yearbook, Vol. 12, 1958 (Rome: 1959), p. 5.

TABLE 9

LAND AND LAND USE IN LEBANON, 1954

Use	Area in Hectares	Per Cent of Total
Cultivated	271,000	26.64
Irrigated farming	50,000	4.91
Dry farming	188,000	18.48
Fallow	33,000	3.24
Cultivable	180,000	17.70
Irrigated farming	40,000	3.94
Dry farming	140,000	13.76
Natural pastures	7,000	.69
Forests	80,000	7.87
Capable of reforestation	200,000	19.66
Roads, water paths, and built-up property	79,000	7.77
Rocky and wasteland	200,000	19.66
Total Area	1,017,000	100.00

Source: Alfred Chamoun, "The Ministry of Agriculture," Studies on the Government of Lebanon (Rajah Himadeh, ed.) (Beirut: Dar-Al-Founoun Press, 1956), pp. 195-196. Arabic.

addition of 7,000 hectares from 1954 to 1957, the ratio had increased to only 0.30 hectares per capita though the population increased by 140,000 to 1,500,000.[1]

It is estimated that "half of the population depends on farming for a livelihood."[2] This estimate is probably inaccurate. A fairly large number of people residing in the rural areas and seemingly engaged in agriculture draw their livelihood from tourist trade and/or remittances from relatives abroad. Nevertheless, when the area under cultivation is considered in relation to the population as noted above the pressure of population on land is obviously a problem. Both the cultivated area per inhabitant and production per acre are inadequate. Only through an increase in cultivated area and improved agricultural methods, including irrigation, can agricultural production be increased.

Agricultural production

In spite of the inadequacy, in general, of agricultural production, Lebanon, because of variations in climate, produces a great variety of agricultural products. Included in the agricultural output are subtropical crops such as bananas and oranges; olives, which are found in the dry coastal plains and on higher elevations; apricots, peaches, pears, apples, figs and grapes, which are grown at elevations of from 2,000 to 5,000 feet; wheat and onions are grown in the interior.[3]

The composition of agricultural production in Lebanon is shown in Table 10. These data, compiled from various sources, although not

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[1] *Ibid.*, p. 14.

[2] *FOA Report*, Vol. I, p. V-26.

[3] N. N. Lewis, "Lebanon and Its Terraces," *The Geographical Review*, XLIII, No. 1 (January, 1953), 10-11.

TABLE 10

AGRICULTURAL PRODUCTION IN LEBANON, 1950-1957

(In thousands of metric tons)

Type of Product	1950	1951	1952	1953	1954	1955	1956	1957
Cereals[a]	104	102	113	112	108	109	103	124
Fruits[b]	176	190	212	237	277	287	317	358
Vegetables[c]	108	106	109	146	210	224	221	216
Leguminous[d]	n.a.	62	58	24	18	15	16	18
Industrial[e]	20	30	31	59	67	34	80	61
Dairy Products[f]	n.a.	36	n.a.	n.a.	n.a.	n.a.	57	63

[a] Includes wheat, barley, corn, oats and millet.

[b] Includes citrus, bananas, apples, grapes, figs, apricots, peaches, quinces, cherries, plums, loquats, and pears.

[c] Includes onions, tomatoes, cucumbers, eggplants, potatoes, watermelons, and greens.

[d] Chick peas, broad beans, lentils, beans.

[e] Tobacco, sugar cane, sesame, hemp fiber, cottonseed, and olives.

[f] Milk, butter, cheese, leban (sour milk).

Source: (1950-1952) United Nations Relief and Works Agency for Palestine Refugees, Quarterly Bulletin of Economic Development, No. 10 (Beirut: September, 1954), p. 56; No. 12 (Beirut: February, 1956), p. 84.

(1953) U.S. Department of Commerce, Basic Data on the Economy of Lebanon (Washington: June, 1955) p. 3.

(1954-1957) For categories a, b, c, d, and e, Republic of Lebanon, Ministry of Agriculture, Beirut. Unpublished statistics on agricultural production. For category f, U.S. Department of Commerce, Economic Developments in Lebanon, 1957 (Washington: 1958), p. 6.

always reconcilable, indicate the more important crops, fruits and vegetables, the production of which has increased most from 1950 to 1957. Substantial increases in output of dairy products has also been achieved while the production of legumes has actually declined.

The importance of agriculture in the total economy is best revealed by the data in Table 4, page 19. Although there was a small increase in the contribution of agriculture to total national income in each year and a considerable increase in 1955 and 1956, the proportion contributed remained approximately the same.

Basic problems of agriculture.

The reasons for the deficiency in agricultural production are not difficult to find. Production "suffers from low yields per acre resulting from primitive methods of cultivation, limited use of fertilizers, and lack of credit facilities."[1] The primitive methods of cultivation refer to poor crop rotation methods, lack of improved seeds, and little use of agricultural machinery. This latter factor is understandable because the country's terrain does not permit the extensive use of mechanization. But it is clear that there is room for improvement. Although the terrain in Israel, for example, is similar to that of Lebanon, the former had 4,500 tractors in use in 1956 compared with 195 tractors in Lebanon for the same period.[2] Although the use of fertilizers has increased substantially during the last few years, the amount used does not meet requirements. Again using Israel as an example, we find that the application of all types of fertilizers in that country amounted to 64 kg. per hectare of cultivated land in 1955, whereas for Lebanon the amount of fertilizers used was 36 kg. per hectare for the same year.[1]

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[1] FOA Report, Appendix to Section VI, p. VIA-17.

[2] United Nations, Department of Economic Affairs, Economic Developments in the Middle East, 1957-1958 (New York: 1959), p. 63.

Perhaps one of the most important factors that limit agricultural production and yields is the lack of irrigation systems. Because almost no rainfall occurs between June and September, crops suffer during the long dry summer. Although bountiful water resources are available, only a very small portion of the total is utilized for irrigation. The whole area suited for irrigation is estimated at 90,000 hectares.[2] Irrigated land in 1946 amounted to 45,000 hectares[3] and 8 years later (1954) only 5,000 hectares had been added, resulting from the Kasmieh Irrigation Project. It is possible, therefore, to increase the land under irrigation by 80 per cent and total land under cultivation by almost 15 per cent through development of the country's water resources.

The field of agricultural credit has long been neglected. Prior to the establishment of the new agricultural and industrial bank, the only specialized agricultural lending agency was the Societe de Credit Agricole et Industriel du Liban known as SCAIL. But, of the LL50 million in agricultural credit outstanding at the end of 1952, only LL6.5 million was extended by SCAIL which charged 10 per cent interest.[4] The balance i.e., LL43.5 million, was extended by private money lenders at interest rates ranging from 15 to 40 per cent.[1]

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[1] *Ibid.*, p. 13.

[2] See Table 9, p. 29.

[3] United Nations Conciliation Commission for Palestine, *Final Report of the United Nations Economic Survey Mission for the Middle East*, Part II (New York: 1949), p. 27.

[4] Republic of Lebanon, Ministry of Planning, *Memorandum on Agricultural Credit, 1955* (Beirut: December,1957), p. 2. Mimeographed and in Arabic.

Imports and exports of foodstuffs

As a result of its dense population and low agricultural production, Lebanon uses a growing proportion of its import capacity to purchase agricultural products. During the four-year period (1952-1956), the average value of imported foodstuffs amounted to 37 per cent of the total value of imports.[2] These food imports consisted mainly of grains (60 per cent of local requirements) and meat and dairy products (75 per cent of local requirements).[3] In connection with this discussion of availability of food supplies, it may be noted that Lebanon possesses a coastline of about 135 miles, yet fishing resources have not been fully exploited. As a result, the country imports about 800 tons of fish annually while its local production is about 3,000 tons.[4]

The most important export crops are fruits and vegetables. Within these two categories, citrus fruits, apples, onions, bananas, and potatoes are important.[5]

In order to arrive at a more meaningful estimate of the dependence of Lebanon upon food imports, it may be well to compare the value of total available food supplies with the value of food imports.

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[1] *Ibid.*, P. 2.

[2] *Infra*, Chap. III, Table 17, p.64.

[3] U.S. Foreign Operations Mission to Lebanon, *Project Agreement, Agronomy* (Beirut: mimeographed 1954), p. 2.

[4] Banque Libanaise pour le Commerce, *Economic Review*, No. 12 (Beirut: September,1954), p. 2.

[5] *Ibid.*, No. 36 (Beirut: June,1957), p. 4.

This comparison is shown in Table 11. These data clearly reveal that Lebanon is highly dependent on food imports, a situation which increased production should, in part, alleviate.

TABLE 11

AGRICULTURAL PRODUCTION, FOOD IMPORTS AND EXPORTS, 1952-1956

(Millions of LL)

Year	Agricultural Production (1)	Food Exports (2)	Net Domestically Produced Foods 1-2 (3)	Food Imports (4)	Total Available Food Supply 3+4 (5)	Percentage of 4 to 5 (6)
1952	216	34	182	123	305	40
1953	221	43	178	133	311	42
1954	226	56	170	149	319	46
1955	253	54	199	151	350	43
1956	284	70	214	169	383	44

Source: Tables 4, 16, and 18, pp. 19, 63, 66.

Modernization of agriculture

Failure of the Government to foster agricultural activities, added to the many economic problems and natural physical handicaps, has retarded the advance of the country's agriculture. The Ministry of Agriculture has been assigned an incredibly minute portion of the national Ordinary Budget.

In 1954, however, the Government established an Agricultural, Industrial, and Land Bank. The lending authority of this bank is LL30 million, 40 per cent of which is earmarked for agricultural loans. The bank cannot charge an interest rate higher than 5.25 per cent.[1] Furthermore, in an effort to enlarge the market for products such as citrus, apples, and onions, the Government has made trade and payments agreements with several countries.[2]

With respect to the provision of agricultural credit the picture has not changed significantly since the establishment of the Bank. According to a memorandum by the Development and Planning Board of Lebanon, the Agricultural Bank is considered conservative in its lending operations, requiring a high security loan ratio. In so doing, it necessarily makes it difficult for small farmers to use its resources and, in effect, serves the interests of the big landowners who could, even in the absence of the Bank, borrow at low interest rates from other sources.[3] A similar view is expressed by Le Commerce du Levant which states that the agricultural credit needs of the country are still very inadequate.[4]

Prior to the establishment of the Agricultural Bank, the Government, in cooperation with the United States Foreign Operations Mission to Lebanon, took some positive steps favorable to agriculture. The Government stepped up its allocation of funds to agriculture while the United States granted $4 million in aid to agriculture from 1953 to 1957.[5]

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[1] "Loi portant création de la Banque de Credit Agricole, Industriel et Foncier," L'Economie Libanaise et Arabe, No. 28 (Beirut: Octobre,1954), pp. 17-21.

[2] Infra, Chap. III, p. 81.

[3] Republic of Lebanon, Development and Planning Board, Memorandum on Agricultural Credit, 1955 (Beirut: December,1957), p. 2. Mimeographed. Arabic.

[4] Le Commerce du Levant (Beirut) February 29, 1956.

[5] United States Operations Mission, 1957 Progress Report, Lebanon (Beirut: Catholic Press, 1958), p. 95.

It is difficult, however, to verify actual expenditures out of these allocations.

The present joint program by the Government and the United States Mission covers many phases of agricultural activities: the importation and distribution of seed and fertilizers, the establishment of demonstration farms where irrigation and scientific farming methods are applied, poultry demonstration farms, and extension services.

It is not possible to estimate the extent of the change that has taken place in agricultural productivity since the inauguration of the joint program in 1953. The joint efforts of the Government and the U.S. Mission have been a stimulus in some directions. Noticeable improvements, for example, have been made in the production of citrus, vegetables, and dairy and poultry products.

The agricultural situation may be summarized briefly as follows: (1) There is an excessive population in relation to the cultivatable land; (2) The deficiency in agricultural production makes it necessary to rely heavily on imported foods; (3) In spite of recent improvements, inefficient farming methods still predominate; (4) Agricultural credit is still inadequate; and (5) Because of the lack of irrigation, crops suffer during the long dry period of intense heat.

Industry

An assessment of the part played by the industrial sector in Lebanon's economy is important because of its potential significance in supporting the development program upon which this study is focused, although only about 12 per cent of the national product originates in the industrial sector.[1]

Lebanese industry expanded under the stimulus of World War II and continued to enjoy high profits and protection in the years immediately following the war. The high profits realized during the war provided both the incentives and the funds for industrial expansion; consequently, during the years 1945-1947 more than 98 industrial plants were established, mostly textiles.[2]

However, the withdrawal of the allied forces from the Middle East, the protective policies of the neighboring countries and a host of economic and technical problems have served to retard the rate of industrial growth. This retardation has been further aggravated by the loss of the Syrian market. It has been estimated that before the breakdown of the customs union with Syria in 1950, some 60 per cent of Lebanon's industrial production was marketed in Syria.[3] Although no separate figures are available on exports of industrial products to Syria, total exports declined from 25 per cent in 1951 to 11 per cent in 1956. These adverse factors have contributed to the fact that most of Lebanon's industries operate at much below capacity.[4]

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[1] See Table 6, p. 22.

[2] Mustafa Nsouli, "From Handicrafts to Industry," Les Conferences du Cenacle, VII (Beirut: April,1953), 78. Arabic.

[3] United Nations, Summary of Recent Economic Developments in the Middle East, 1950-1951 (New York: 1952), p. 73.

[4] Nsouli, op. cit., p. 81.

Characteristics of industry

Value and composition of industrial production in 1955.--The first official census of industry in Lebanon was taken in 1957 covering the year 1955. According to this census which covered 1,861 establishments and which was carried out jointly by the Government of Lebanon, the Economic Research Institute of the American University of Beirut, and the United States Operations Mission to Lebanon, the gross value of industrial production in that year was about LL400 million with a value added of nearly LL155 million. (See Table 12.)

The 1955 Industrial Census provided no date of physical output. Several efforts have been made, however, to compile statistics of physical production and some of these, for selected years, are included in Table 13. Of major significance for this study is the increase in cement from 1952 to 1956, and the growth in the generation of electricity.

The distribution of production and of value added by various branches of industry is presented in Table 12. Foodstuffs industries accounted for approximately 30 per cent of the gross value of industrial production, although in value added their relative share was less, amounting to 23 per cent of the total. This marked difference between the importance of food manufacturing measured in terms of gross value and its significance measured in terms of value added is due to the nature of the industry. For the most part, it is simple transformation of raw materials into marketable foods. The actual manufacturing process consists largely of packaging and preparing for market; only to a limited extent are there major alterations in the nature of the commodity.

TABLE 12

MAJOR CHARACTERISTICS OF INDUSTRY IN LEBANON, 1955

	Number of Establishments (1)	Number of Persons Employed (2)	Cash Receipts (Thousand of LL) (3)	Value Added (Thousand of LL) (4)	Gross Value in Different Industries as per cent of Total (5)	Value Added by Industry as per cent of Total Value Added (6)	Wages and Salaries Paid (Thousand of LL) (7)	Value Added per Person (LL) (8)	Average Remuneration per Person (LL) (9)	Labor Income as Percentage of Value Added (10)
ALL INDUSTRIES	1,861	35,013	399,503	154,879	100	100	49,302	4,423	1,408	32
MINING AND QUARRYING	68	799	2,168	1,708	...	1.1	1,086	2,138	1,359	64
MANUFACTURING	1,793	34,214	397,335	153,171	99.4	98.8	48,216	4,477	1,409	32
Food manufacturing, except beverages	554	6,468	119,724	36,270	30.0	23.4	8,306	5,608	1,284	23
Beverage industries	74	1,040	13,579	8,024	3.3	5.2	1,756	7,715	1,688	22
Tobacco manufacturing	3	1,743	24,156	19,486	6.0	13.0	4,241	11,180	2,433	22
Textiles	113	6,049	38,269	15,589	10.0	10.0	5,736	2,577	948	37
Footwear, wearing apparel and other made-up textile products	245	3,632	21,497	9,197	5.3	5.9	3,807	2,532	1,048	41
Printing, publishing and allied industries	108	1,660	9,913	5,636	2.4	3.6	3,673	3,395	2,213	65
Paper and paper products	16	204	2,858	782	...	...	230	3,833	1,127	29
Wood and cork manufactures except furniture	71	755	4,365	2,113	1.0	1.3	845	2,799	1,119	40
Furniture and fixtures	168	2,643	14,633	6,895	3.7	4.4	3,158	2,609	1,195	46
Leather and leather products except footwear	45	937	13,309	3,044	3.3	2.0	1,080	3,249	1,153	35
Rubber products	15	523	3,089	1,370	...	...	576	2,620	1,101	42
Chemicals and chemical products	37	630	10,138	3,571	2.5	2.3	6,019	5,668	1,617	29
Non-metallic mineral products	155	4,338	89,436	29,108	22.4	19.0	8,770	6,710	2,022	30
Basic metal industries	3	26	236	66	...	...	30	2,538	1,154	45
Metal products, except machinery and transport equipment	102	2,135	18,097	7,152	4.5	4.6	2,966	3,350	1,389	41
Manufacture of machinery, except electrical	23	295	3,148	824	...	...	321	2,793	1,088	39
Electrical machinery, appliances and supplies	10	257	2,283	1,037	...	...	420	4,035	1,634	40
Manufacture of transport equipment	10	177	1,431	500	...	...	270	2,825	1,525	54
Miscellaneous manufacturing industries	43	702	7,173	2,507	1.8	1.6	1,021	3,571	1,441	41

... denotes less than 1 per cent.

Source: Cols. (1), (2), (3), (4), and (7) are taken from Republic of Lebanon, Ministry of National Economy, Industrial Census, 1955 (Beirut: 1957), Tables 2 and 33, pp. 8 and 52.
Cols. (5), (6), (8), and (9) are calculated by the writer from Tables 2 and 33 of the Industrial Census.

TABLE 13

INDUSTRIAL PRODUCTION IN LEBANON, 1952, 1954, and 1956

(In metric tons unless specified)

Industry	1952	1954	1956
Foodstuffs[a]	41,700	67,464	...
Beverages including alcoholic[b]	32,700	51,943	...
Textiles	9,565	9,478	...
Apparel	485	832	...
Wood, excluding furniture	34,557	60,222	...
Furniture	1,240	1,866	...
Mineral products[c]	369,830	500,000	560,000[g]
Metallic products and machinery	8,045	18,512	...
Paper and products	820	1,028	...
Printing	1,385	3,291	...
Tanning and leather	3,085	5,899	...
Chemicals[d]	14,500	51,792	...
Rubber	286	910	...
Electrical equipments	1,000,000[f]	710	...
Electricity, thousands of kwh	146,770	179,139	250,000
Petroleum refining	460,900	507,114	...
Tobacco products, millions of cigarettes	900,000	975,000	...
Miscellaneous[e]	3,400	28,530	...

[a] Including vegetable oils, confectionery, macaroni, sugar refining.

[b] Beer, wine, Arak, soft drinks, ice, and ice cream.

[c] Includes cement, cement products, bricks, glass and pottery.

[d] Matches, soap, perfumes, plastics, chemical preparations, and fertilizers.

[e] Includes diamonds, animal glue, brushes, jute and hemp.

[f] Number of electric bulbs. Add 850 units of refrigeration and ice boxes, and 2,000 radio sets.

[g] Cement only.

Source: (1952) *Le Commerce du Levant* (Beirut), July 3, 1954.
(1954) Banque Libanaise pour le Commerce, *Economic Review*, No. 22 (Beirut: November, 1955), p. 1.
(1956) Republique Libanaise, Ministre de l'Economie Nationale, Service de la Statistique Generale, *Bulletin Mensuel* (Beirut: Janvier-Decembre, 1956).

... Denotes that figures are unavailable.

Non-metallic mineral products were the second most important of the industrial branches in terms of gross production value (22.4 per cent) and of value added (19 per cent). Tobacco and textiles are the third and fourth most important industries in terms of both gross value and value added. If the values added in these and other industries previously mentioned are combined, they contributed 65 per cent of the total value added. Other notable contributions were made by the footwear and wearing apparel industries (6 per cent) of total value added; beverages (6 per cent); metal products (5 per cent); and furniture (4 per cent).

If the composition of industrial production is examined by type of product, more than half of the total value added is seen to have been derived from the production of goods intended for final consumption, whereas only low percentages were registered for intermediate and capital goods. These percentages demonstrate the predominance of enterprises producing consumer goods and the comparatively small significance of capital goods industries.

Capital stock and its utilization.--A comparison of the ratio between the amount of capital invested in industry and the product obtained would be very useful. Such comparisons would make possible an assessment of the extent to which investment effort is yielding satisfactory results. Such a procedure, however, would require information for each branch of industry so that gross value could be compared with value added in production on the basis of the stock of capital. The necessary data, however, do not exist and therefore accurate comparisons are not possible. The 1955 Industrial Census omitted all reference to stock of capital, confining itself to inquiries into investments on a gross basis made during that year. Therefore, for data on total capital investment, we are forced to rely on unofficial estimates. Although lack of reliable and systematic compilation of data is acknowledged, some very tentative estimates are presented here mainly for the sake of illustration.

Total capital stock invested in industry in 1955 is estimated at LL350 million.[1] If this figure is compared with the value of industrial production (LL400 million in 1955), it may be calculated that during the year in question .9 unit of capital was necessary per one unit of gross value of production, and 2.3 units of capital per unit of value added; in other words, this gives a product-capital ratio of 1.1 and .44 for gross value and value added respectively.

These figures appear to indicate that the product-capital ratio in Lebanon's industrial sector was comparatively unfavorable.[2] Although the validity of this ratio should be accepted with caution, the general conclusions appear to be correct, since there are a number of factors which call for unusually high investment in the case of Lebanon's industries. Aside from investment in machinery and equipment, it is also necessary to make substantial investment in capital goods which are not intended to be used directly in production but rather to augment inadequate public services, or to offset the lack of specialized industries. Outstanding examples are the installation of private power systems by most industries, which would otherwise have no guarantee of an adequate and continuous power supply, and the provision of their own repair shops.[1] Furthermore, since large stocks of raw materials and intermediate products must be imported, the maintenance of an adequate reserve of materials must be financed if continuing production is to be assured. It is estimated that industrial enterprises in 1955 held inventories valued at LL70 million,[2] representing approximately 45 per cent of the value added by industry during that year.

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[1] Banque Libanaise pour le Commerce, Economic Review, No. 35 (Beirut: May,1957), p. 1.

[2] The ratio of value added to capital in Egyptian industry was .70 (1950) and .73 in Turkish industry (1950). United Nations, The Development of Manufacturing Industry In Egypt, Israel and Turkey (New York: 1958), p. 43.

The fact that productive capacity has increased more during recent years than production itself has accentuated the problem of excess capacity in the industrial sector. The absolute increase in the value added in production from 1952 to 1955 amounted to LL19 million[3] or an increase of about 14 per cent, whereas the absolute increase in capital stock between 1952 and 1955 amounted to LL61 million or an increase of about 22 per cent.[4] In the meantime, the industrial share in the national income remained the same, namely 12 per cent.[5]

This increase in plant capacity in some areas of industry, in spite of a declining export market (in Syria, particularly) and of a declining domestic market due to preference for foreign goods, seems odd. It is to be explained in the case of Lebanon by the highly individualistic nature of enterprise and the consequent "lack of prior studies of markets, sources of raw materials, or production costs."[6]

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[1] A. E. Mills, "The Man in the Middle," Middle East Forum, XXXII (Beirut: June,1957), 33.

[2] See Table 14, p. 49.

[3] See Table 4, p. 19.

[4] Capital invested in industry amounted to LL289 million in 1952. Le Commerce du Levant (Beirut) July 3, 1954.

[5] See Table 4, p. 19

[6] Nsouli, op. cit., p. 88.

Excess capacity is by no means present throughout industry. While textiles, flour milling, and sugar refining operated at "between one-half and three-fourths of installed capacity in 1957,"[1] the utilization of cement capacity was intensive. The intensity of the utilization of cement capacity is due to the high levels of domestic demand. This demand has prompted the expansion of cement capacity from 500,000 tons annually in 1954 to 660,000 tons by the end of 1957.[2] It may be concluded in general, however, that most industrial capacity is only partially utilized which, to some extent, explains the unfavorable product-capital ratio.

Employment: remuneration and productivity of labor.--According to the Industrial Census of 1955, the total number of persons employed in industry was about 35,000 (See Table 12, p. 40). Total wages and salaries paid amounted to more than LL24 million as against total value added of more than LL150 million, which indicates that 32 per cent of value added was paid to labor. The average remuneration per person varied from LL2,433 per year in tobacco to LL948 in textiles and LL2,000 in non-metallic mineral products. A comparison of the relationship of the share of value added paid to labor in 1955 and other years in order to see how the share of remuneration in total value added by industry had varied between these years is not possible due to the unavailability of data. But a rough comparison of labor income as a percentage of value added between Lebanon and Israel, for example, is possible. The estimates for Lebanon that labor income in 1955 averaged 32 per cent of value added for all industries may be compared with Israel where labor income was 63 per cent of value added by industry in 1953.[1] Two factors affect the difference in the labor income as a percentage of value added in the two countries: (1) the productivity of labor in Israel is higher than in Lebanon; and (2) labor unions in Israel have a very strong bargaining power where in Lebanon, labor unions are weak.

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[1] U.S. Department of Commerce, Economic Developments in Lebanon, 1957 (Washington: 1958), p. 6.

[2] Ibid., p. 2.

The highest value added per person employed was achieved in the tobacco industry (LL11,180 or the equivalent of $3,440)[2] while the lowest was in textiles (LL2,577 or the equivalent of $793). The average added per person for all industries was LL4,423 or the equivalent of $1,361. This last figure compares unfavorably with the value added per employed person in industry in Israel ($1,800 in 1952) and in Turkey ($1,500 in 1950).[3]

Basic problems limiting industrial production

In the following pages the basic problems limiting industrial production will be analyzed and the part played by the official economic policy in creating incentives or obstacles to industrial development will be examined. A successful solution of these problems is imperative if domestic industry is to play its proper role in meeting the demands of the development program considered in this study.

Problems facing existing industries in Lebanon vary from one industry to another. In addition to the problems of over-capacity, the preference for foreign goods, and the loss of the Syrian market, which have been mentioned above, the following factors have retarded industrial production in Lebanon: (1) inadequacy of a technically skilled labor force; (2) lack of resources and the consequent heavy dependence on raw material imports; (3) inadequacy and high cost of credit; (4) high cost of fuel and power and the irregularity of the latter; and (5) foreign competition. These problems will be discussed seriatim.

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[1] United Nations, The Development..., op. cit., p. 45.

[2] Exchange rate is LL3.25 1$U.S.

[3] Ibid., p. 70.

(1) The levels of skills are generally low. These are reflected in low wages which were discussed above.[1] The following quotations from Professor Mills of the American University of Beirut confirm this conclusion:

> Literacy has been given priority over technical proficiency and leadership training . . . the underlying philosophy seems still to be that education, to be truly so, must be intellectual.[2]
>
> Industrial firms have to train their men as best they can . . . But training is costly for the small firm, especially when labor turnover proves to be high. . . . The small firm burdened with training costs pays relatively low wages.[3]

(2) There is a paucity of natural resources. This factor has already been discussed in Chapter II, pages 13 and 14. "While some available agricultural products are being processed for local consumption,"[4] large volumes of raw materials are imported. It has been estimated that, on the average, Lebanon imports a little more than 50 per cent of the raw materials and intermediate products needed by

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[1] _Supra_, p. 17.

[2] Mills, _op. cit_., p. 13.

[3] _Ibid_., p. 33.

[4] Edmund Asfour, "Industrial Development in Lebanon," _Middle East Economic Papers, 1955_ (Beirut: American University of Beirut, 1955), p. 7.

industry.[1] This estimate is confirmed by a survey conducted by the Economic Research Institute of the American University of Beirut under the direction of Dr. Edward Fei, formerly of that institution. Dr. Fei writes the following:

> In many cases (matches, textiles, vegetable oils, aluminum utensils, and chocolates) raw materials imports constituted 90-100 per cent of total raw materials. . . . In the manufacturing of soap, brushes, macaroni, as well as flour milling, around bulb industry, which claimed to import only 42 per cent of its raw materials, it may be presumed that materials purchased locally . . . were in part derived from imports.[2]

To Dr. Fei's list of industries heavily dependent on imports can be added, paper, rubber, and metal products industries. On the other hand, as might be expected, the degree of dependency on imported raw materials varies from one branch of industry to another. Imported raw materials for foodstuffs and for cement are, in general, insignificant in quantity.

The size of inventories carried in various industries, though not a perfect indicator, tends to reflect the extent of the dependence on imported raw materials and intermediate products. A comparison of cash receipts with inventories held in 1955 shows that among the industries having the highest inventories relative to sales are: tobacco (48 per cent); paper and products (40 per cent); electrical machinery (37 per cent); textiles (32 per cent); rubber products (31 per cent); and leather (30 per cent). Among the more important industries having low inventories relative to sales are: foods (9 per cent); beverages (12 per cent); and non-metallic minerals (10 per cent). (See Table 14, p. 49.)

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[1] Le Commerce du Levant (Beirut) July 3, 1954. For details on the nature of imports and their sources, see Table 16, p. 63 and Table 20, p. 68.

[2] Edward Fei, "The Balance of Payment of Lebanon, 1951-1952," Unpublished Ph.D dissertation, University of Washington, 1955, p. 96.

TABLE 14

VALUE OF INVENTORIES HELD AND INVENTORIES AS PERCENTAGE OF CASH RECEIPTS BY MAJOR INDUSTRY GROUP, 1955

Major Industry	Inventories December 31, 1955 (Thousands of LL)	Inventories as Percentage of Cash Receipts[a]
ALL INDUSTRIES	69,953	21
MINING AND QUARRYING	69	3
MANUFACTURING	69,884	18
Food Manufacturing, Except Beverages	10,994	9
Beverage Industries	1,671	12
Tobacco Manufacturing	11,883	49
Textiles	12,308	32
Footwear, Wearing Apparel and Other Made-Up Textile Goods	5,333	25
Wood and Cork Manufactures, Except Furniture	1,010	23
Furniture and Fixtures	2,243	15
Paper and Paper Products	857	40
Printing, Publishing and Allied Industries	1,733	17
Leather and Leather Products, Except Footwear	3,858	30
Rubber Products	944	31
Chemicals and Chemical Products	2,756	27
Non-Metallic Mineral Products	9,385	10
Basic Metal Industries	13	6
Metal Products, Except Machinery and Transport Equipment	2,504	14
Manufacture of Machinery, Except Electrical	203	6
Electrical Machinery and Appliances	851	37
Manufacture of Transport Equipment	67	5
Miscellaneous Manufacturing Industries	1,270	18

[a] Cash Receipts are given in Table 12, p. 40.

Source: Republic of Lebanon, Ministry of National Economy, Industrial Census, 1955 (Beirut: 1957), Table 41, p. 60 and Table 2, p. 8.

(3) Financial capital is not as available for industrial development as it would appear. Although Lebanon seems to "have at present a great deal of capital, partly coming from savings, and partly imported,"[1] this does not mean an automatic channeling of this capital toward industrial enterprises. The market for corporate securities is poorly developed. Furthermore, there is no apparent desire to hold these securities. Traditionally, Lebanese capital flows into commercial enterprises which have developed over the years and which offer quick and highly profitable returns. It is not to be expected that funds, under the circumstances, will be re-channeled into industrial production which at best is considered a secondary field of investment.[2] " . . . despite the abundance of short term capital in Lebanon there is a shortage of long term capital which is specifically suitable for industrial investment."[3]

(4) Power supply is irregular and power cost is high. It is this irregularity of power supply that has forced many industries to supply their own power and this, in turn, has had an adverse effect on costs. According to the Industrial Census of 1955, the total industrial consumption of electricity amounted to 90.3 million kwh. Of this total about 42.6 million were purchased from the Government-owned utilities at 14 piasters per kwh. The balance (47.7 million--more than half) was produced by the industries themselves.[4] According to the FOA

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[1] Paul Klat, "The Future of Economic Development in the Arab World," Middle East Economic Papers, 1956 (Beirut: American University of Beirut, 1956), p. 61.

[2] Ibid., p. 61.

[3] Asfour, op. cit., p. 5.

[4] Republic of Lebanon, Industrial Census, 1955 (Beirut: 1957), p. 67.

Report the average price of all electricity consumed in Lebanon (commercial, industrial, and residential) amounted to 19 piasters per kwh in 1954.[1] Although the production of electricity increased 40 million kwh in 1955 over 1954 there is no indication of any reduction in rates. The discrepancy between the price charged by the Government (14 piasters per kwh) and that given by the FOA Report (19 piasters per kwh) is due to two factors: (1) heavy cost involved in the generation of electricity by industries for their own use and (2) the fact that the Government charged higher rates on commercial and residential consumption than industrial consumption. If we take the rate of 14 piasters or the equivalent of 4.5 cents as a basis for comparison with industrial rates on electricity prevailing in other countries, the situation in Lebanon is highly unfavorable. The rate in Egypt, for example, was 1.3 cents in 1952, that in Israel, 1.4 cents, that in France, 1.6 cents, and that in the United Kingdom, 1.1. cents.[2] This comparison brings into clear focus one of the difficulties under which Lebanese industry is operating.

The high cost of electricity is due in part to the costly fuel oils which must be imported.[3] About half of the electricity produced in

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[1] FOA Report, Vol. I, pp. VI-17, 45.

[2] United Nations, Development of Manufacturing..., op. cit., p. 78.

[3] Although Lebanon refines about 500,000 tons of petroleum products annually, fuel costs are higher in Lebanon than those prevailing in the neighboring countries. For example, a ton of fuel oil costs LL30 in Port Said, Egypt; LL29 in Iraq; and LL52 in Lebanon. L. Dahdad, "A Comparison of Factors Affecting Selling Prices of Industrial Products in Lebanon and Abroad," Industrial and Commercial Review of Lebanon, No. 7 (Beirut: May,1954), p. 10. Arabic. These differences in oil prices may be explained by the fact that while Egypt is self-sufficient in oil and Iraq is a net exporter of oil, Lebanon is not an oil producing country.

1955 was generated from petroleum.[1] "This forms serious drawbacks to industrial enterprises particularly to those in which the cost of fuel and power figures as an important item of expenditure."[2]

(5) The free importation of foreign goods which are, as a general rule, superior to local products, and the natural preference of consumers for these imports[3] impose upon the local industries the necessity of improving their products if they are to compete more effectively in the local market. Recently, the Government has manipulated tariff rates to help industries. These manipulations, however, "were directed more at reducing the cost of raw materials than at providing protection from imported goods."[4]

Government and industry

Lebanon enjoys the natural position of an "entrepot of the Middle East" therefore, the government tends to pursue a policy favorable to commercial interests, and the policy considered by the Government to be most favorable to the commercial interest is one of laissez faire. This laissez faire policy, however, has contributed to a precarious situation in industry. Since 1953 some measures have been taken which are intended to alleviate the problems of industry.

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[1] Bulletin Statistique Trimestriel, VIII (Premier Trimestre, 1957), 46.

[2] Asfour, op. cit., p. 7. For the effect of the Litani Project on the reduction of power costs for industry, See Chap. IV of this study.

[3] "Today . . . there is the assumption that imported foreign goods are automatically superior; "German-made: is the hallmark of something mechanical and "French-made" is something elegant or luxurious." Peter Mansfield, "Lebanon Industrializes," Middle East Forum, XXXII (Beirut: April,1957), p. 35.

[4] U.S. Department of Commerce, Economic Developments in Lebanon, 1957 (Washington, 1958), p. 6.

Tariff rates have been manipulated, credit facilities improved, electrical output increased, tax privileges granted, and the necessity for technical assistance recognized.

Tariffs have been raised on a few items, such as sole leather, furniture, and brushes which compete with domestic production and on ready-made clothing and asbestos cement articles. On the other hand, rates on certain industrial goods, such as packing and bottling machinery have been reduced and those on machinery, spare parts, iron ware, pipes and electrical apparatus either reduced or eliminated.[1]

The scarcity and high cost of industrial credit have been somewhat alleviated through the establishment of the Agricultural, Industrial and Real Estata Bank in late 1954.[2] This new bank represents an initial stap toward the solution of the critical shortage of industrial credit, although its limited resources "are only a small fraction of the demand and it cannot hope to solve the problem."[3]

In 1953 steps were taken to increase the production of electricity and to reduce its cost. The Government bought the Beirut Electricity and Transport Company from the Belgian-French interests. Subsequently, new generating plants were installed so that the output of electricity increased from 163 million kwh to 250 million kwh in 1956.[4] Despite this increase in the production of electricity, however, power shortages still prevail and the cost of power is still high, as was pointed out earlier. This situation is due to the growing demand on the one hand and to the fact that the equipment that was operated by the concessionary company is worn out and is subject to frequent and lengthy stoppages. The shortage and high cost of electricity continues to create difficulties for industry.

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[1] United Nations, Economic Developments in the Middle East, 1945-1954 (New York: 1955), p. 162.

[2] The complete text of the Law creating the Agricultural, Industrial and Real Estate Bank is found in L'Economie Libanaise et Arabe, No. 28 (Beirut: October, 1954), pp. 17-21.

[3] A.E. Mills, "Economic Change in Lebanon," Middle East Economic Papers, 1956 (Beirut: American University of Beirut: 1956), p. 88.

[4] Bulletin Statistique Trimestriel, VII (Quatrieme Trimestre, 1956), 37.

In 1954, a tax law was enacted which exempts newly established businesses from taxation for a period of six years. In order to benefit from this law, new businesses must be different from those already established and must have a capital of at least LL1 million; and salaries and wages paid to Lebanese employees must reach LL100,000 a year.[1]

According to the Second Annual Report of the Planning and Development Board of Lebanon, several new firms received tax exemptions in accordance with the provisions of the 1954 tax law.[2] These included firms engaged in: (1) manufacturing of electrical appliances (joint American-Lebanese capital); (2) ship building and repair; (3) chemicals; (4) manufacturing of steel tubes; (5) juice concentrate; and (6) aircraft repairs.

In 1953 an Industry Institute was created with contributions of LL1,000,000 from the United States, LL164,000 and a building site from the Government of Lebanon, and LL80,000 from the Association of Lebanese Industrialists.[3] The purpose of the Institute is to provide

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[1] L'Economie Libanaise et Arabe, "Texte de la Loi Portant Exoneration Fiscale des Societes," No. 22 (Beirut: February,1954), pp. 38-39.

[2] Republic of Lebanon, Planning and Development Board, Second Annual Report, 1956 (Beirut: 1956), pp. 69, 74-75, 77, 80, 82-84. Arabic.

[3] U.S. Operations Mission to Lebanon, Project Agreement, The Industry Institute (Beirut: March 2, 1953). Mimeographed.

Lebanon with a reliable body of experts as an "organized channel" for the exchange of technical knowledge and production methods between specialists of the International Cooperation Administration, industry, and university research units and laboratories. It entered its operational stage in 1955. The Institute will afford technical advice to existing industries with a view to bringing about better management, more efficient production methods, better accounting procedure, and, in general, improved conditions.[1] In addition, its work includes investigation into the possibility of new industries and the promotion of their establishment if investigation indicates their feasibility.

The activity of the Industry Institute will no doubt improve the quality of local products and render them more competitive domestically with imports. This in itself should broaden the market and should also expand the market for exports to neighboring Arab countries. This view is strengthened by the fact that trade agreements have already been concluded with these countries. (See Chapter III, p. 81.)

Although the Industry Institute will carry out studies and research which will be helpful to industry, it was not designed as a training center for industrial workers. Technical education as well as vocational training are the obvious remedies for shortage of skilled factory workers, foremen, and managers. Major credit for what little has been accomplished in the critical field of technical training should go to the United States Operations Mission to Lebanon. Through its financial and technical support, the Ministry of Education was able to expand the facilities for technical training and the training of teachers for schools. As a result of the American aid, the number of trainees in the "Arts et Metiers" (Trade School) has shown a marked increase. At the beginning of the session 1956-1957, there were 180 second-year students and 97 third-year students. To this 277 students, 240 first-year students were added, making a total of 517 students, indicating considerable growth. But this is far from adequate and "the number of trainees needs to be stepped up appreciably."[1]

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[1] U.S. Operations Mission to Lebanon, 1955 Progress Report (Beirut: Catholic Press, 1956), p. 77.

The neglected field of technical training has been finally recognized by the American University of Beirut:

> The Engineering School of the American University . . . has devised a new course of study leading to a Degree of Technology. Half of the time of students will be devoted to engineering subjects, and the balance to management to give them the knowledge, skills, and insight required to perform the tasks of supervisors and middle managers in industry.[2]

Summary.--Although the measures taken by the Government which were discussed above have been far from adequate, they have nevertheless resulted in some improvement in the industrial environment and have to a degree alleviated some of the problems. This is evidenced by the increase of 23 per cent in the income originating in industry from 1954 to 1956 as compared with an increase of only 3 per cent from 1952 to 1954. In 1956 and 1957, several new industrial plants were established in Lebanon, principally in the fields of fertilizers and chemicals, cement and electricity. However, if Lebanon is to remove the unfavorable factors in the industrial environment, much remains to be done. Provision of more credit is needed, more technical training must be provided, ample power must be furnished, and a greater quantity of agricultural products must be provided for domestic processing.

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[1] A.E. Mills, "The Man in the Middle," Middle East Forum, XXXII (Beirut: June, 1957), 33.

[2] Ibid., p. 33.

The benefits to be derived from the development program considered in this study will alleviate some problems of industries. In particular, the program will provide: ample and low-cost power, increased agricultural production, and more adequate transportation.

Despite the improvements already made and those expected from the development program, it is not to be assumed that Lebanon will become highly industrialized. Lebanon will probably remain as it has been for centuries--a country devoted primarily to commerce and services in which it holds a comparative advantage.

Transportation

In connection with transportation it is necessary to ascertain the adequacy of the highway system, railways, navigation, and ports to meet the needs of the movements of goods and people necessary for the implementation of the development program considered in this study.

Highways

The absence of navigable streams and the mountainous character of the country place emphasis on the construction of highways. Realizing this, the Government of Lebanon has developed a considerable highway system. The system, however, must still be regarded as inadequate especially when development needs are taken into consideration. Although in 1956 Lebanon had a total of 2,500 miles of first class roads and a considerably greater mileage of stone-paved and dirt roads,[1] the Litani project calls for the construction of 30 kilometers of access roads.[2]

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[1] United States Operations Mission to Lebanon, 1957 Progress Report (Beirut: Catholic Press, 1958), p. 96.

[2] See Chapter V, p.115.

Railways

Three railroad lines serve Lebanon. A narrow-gauge line links Beirut with Damascus, while a standard gauge track connects Beirut with Homs, Syria. Another standard gauge line links Nakura, on the Israeli border with Beirut. This line, however, is now idle. Total trackage in Lebanon is about 370 miles of standard gauge and 94 miles of narrow-gauge.[1] Rail transport is used for the long hauls to and from Syria and Turkey. The railway system, however, will prove useful in moving construction materials, particularly from Beirut to the various sites near construction activity.

Air and sea ports

Lebanon is served by 29 foreign and 2 domestic airlines. The major airport, Beirut International, is located about 4 miles south of Beirut. It was opened for traffic in 1951 at a cost of LL48 million.[2] There are other small airports located near Saida, Tripoli, and Rayak. These are used by the oil companies and by the Lebanese Army.

The Port of Beirut can receive up to 25 vessels daily in comfortable anchorage.[3] It has a warehouse capacity of about 80,000 metric tons in covered space and 200,000 metric tons in open space.[4] It also possesses a free zone with an area of 108,000 square meters and has 150 warehouses.[5] The Port possesses a 50-metric ton crane mounted on a barge which can lift 30 metric tons at a span of 18 meters. A railway track connects the Port with the interior.[1]

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[1] U.S. Department of Commerce, Basic Data on the Economy of Lebanon (Washington: 1955), p. 7.

[2] L'Economie Libanaise et Arabe, "Le Port de Beyrough: Porte de l'Asie," No. 35 (Beirut: May, 1954), p. 12.

[3] The Lebanese American Journal (Detroit: November, 1955), p. 3.

[4] L'Economie Libanaise et Arabe, op. cit., p. 12.

[5] Ibid., p. 12.

From the foregoing discussion, it can be assumed that the transportation facilities, with the planned additional access roads to be built for the construction of the Litani Project, will be adequate to serve the needs of the development projects.

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[1] *Ibid.*, p. 12.

CHAPTER III

FOREIGN ECONOMIC RELATIONS

A review of Lebanon's agricultural and industrial potentials made in Chapter II revealed the heavy dependence of the country on imports. This pattern is brought out clearly in Table 15 which presents adjusted figures on the foreign trade of Lebanon.[1] The data reveal a sharp increase in imports and exports and a widening trade gap. Thus, between 1951 and 1957, imports increased by 100 per cent while exports increased by 75 per cent. As a result the trade deficit increased by 113 per cent. These large trade deficits can be attributed to: (1) the basic lack of resources to support local population; and (2) the need for commodities to supply the influx of tourists during the summer months. It may be noted that the decrease in the trade deficit in 1953 (see Table 15) was the result of a decline in the value and volume of imports. This decline in the value of imports was due to the appreciation of the Lebanese

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[1] Principal adjustment relates to the use of the "par" rate of exchange in determining the local currency value of imports. Such a method of calculation naturally undervalues all imports except those from Syria, as importers acquire all their foreign exchange needs in the market. The discrepancy between the "par" rates and market rates amounts to about 30 per cent. An upward adjustment in the value of exports is also necessary to provide for unrecorded exports such as goods taken out of Lebanon by tourists and goods smuggled into neighboring countries. These unrecorded exports are generally believed to be around 35-50 per cent of the recorded ones. International Monetary Fund, Lebanon, Background Material for 1954 Consultations, Part II (Washington: April 29, 1955), p. 15. Mimeographed.

TABLE 15

ADJUSTED VALUE OF MERCHANDISE IMPORTS AND EXPORTS OF LEBANON, 1951-1957[a]

(Millions of LL)

Category	1951	1952	1953	1954	1955	1956	1957
Imports[b]	399.6	437.5	413.5	566.1	684.3	730.3	800.0
Exports and Re-exports	140.1	147.1	138.0	195.7	202.0	236.4	246.0
Deficits[c]	259.5	290.4	275.5	370.4	482.3	493.4	554.0

[a] Includes gold. Lebanon's imports are valued at the "par" rate of exchange rather than at the market rate. The adjusted figures were provided this writer without the exact method of calculation. For a general idea of the method of adjusting the value of exports and imports, see footnote 1, p. 60.

[b] Excluded are: (1) Government imports of military equipment; (2) imports by foreign embassies, missions, and United Nations Relief and Works Agency for Palestine Refugees; and (3) imports of specified concessionary companies, such as Trans-Arabian Pipe Line Company and Iraq Petroleum Company. Included are petroleum products produced by Iraq Petroleum Company in Tripoli, Lebanon and destined for final consumption in Lebanon. Edward Fei and Paul Klat, *The Balance of Payments of Lebanon, 1951 and 1952* (Beirut: American University of Beirut, 1954), p. 71.

[c] Since Lebanon had a surplus in its balance of payments for the years 1951-1955, the merchandise trade deficits shown in the table are a rough indication of the growing importance of the services sectors in the foreign trade of Lebanon.

Source: 1951-1954: Based on Table 21, p. 70.
1955-1957: Secured personally from International Monetary Fund, Middle Eastern Department.

pound while the drop in the volume was due to the fully-stocked market following the end of the Korean War.[1]

Commodity Trade

Imports

Unadjusted statistics on the value of Lebanese imports broken down into five major categories are presented in Table 16. These data emphasize severe deficiencies in foods.

Industrial products include (1) fuels, considerable quantities of which are used in industry and transport; (The implementation of the Litani and other power projects should alleviate the heavy dependence on fuels, thus resulting in considerable savings of foreign exchange.) (2) chemicals which include pharmaceuticals and fertilizers; (3) textiles which include both finished and raw materials products. It is noteworthy that the value of finished cotton imports have shown an increase despite the fact that local textile mills were operating at levels below capacity. This may indicate the extreme difference in the quality of imported and locally manufactured textile products, as well as reflect differences in costs of production.

Building materials imports actually more than doubled between 1952 and 1956. This fact attests to the prosperity of this sector. The two-fold increase in the machinery and vehicles imports between 1952 and 1956 enhance the productive capacity of the country as they aid agriculture, industry and tourism.

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[1] Banque Libanaise pour le Commerce, Economic Review, No. 5 (Beirut: August-September, 1953), p. 1.

TABLE 16

MERCHANDISE IMPORTS TO LEBANON, 1952-1956

(Thousands of LL)

Type of Commodity	1952	1953	1954	1955	1956
A. Animal and Food Products					
Live animals, meats, and dairy products	28,457	39,040	40,512	47,188	48,723
Fruits, grains, and vegetables	77,723	77,539	89,373	81,089	95,541
Cereals and flour	48,527	46,258	67,920	43,797	44,786
Other	29,196	31,281	21,453	37,292	50,755
Oils and fats	2,912	3,072	2,598	5,097	3,805
Processed foods and drinks	14,204	13,210	16,064	17,255	20,728
Total (A)	123,296	132,861	148,547	150,629	168,797
B. Industrial Products					
Mineral products	25,638	27,408	31,408	42,527	49,872
Chemicals	14,810	16,238	19,490	21,788	27,066
Hides and leather products	5,092	3,999	5,640	6,475	6,619
Rubber products	2,850	3,318	4,360	5,331	6,068
Paper products	5,831	5,117	7,593	9,536	10,491
Textiles and products	46,094	44,122	57,668	63,245	62,571
Raw cotton	8,345	9,210	21,395	19,495	18,732
Cotton cloth	7,560	7,212	8,964	9,162	9,935
Woolen cloth	5,887	4,696	18,506	20,988	21,769
All other	24,302	23,004	8,803	13,600	12,135
Total (B)	100,315	100,202	126,159	148,902	162,687
C. Building Materials					
Wood and wood products	7,775	7,363	9,276	13,373	14,700
Stones, ceramics and glasswares	5,585	4,642	6,116	8,800	8,814
Common metals and manufactures	22,732	25,755	28,150	45,692	60,747
Total (C)	36,092	37,760	43,542	67,865	84,261
D. Machinery and Vehicles					
Machinery	26,206	22,133	30,176	49,307	55,346
Vehicles	13,022	15,076	20,755	37,266	28,537
Motor cars	10,064	11,748	15,476	17,655	19,410
Others	2,958	3,328	5,279	19,611	9,127
Total (D)	39,228	37,209	50,931	86,573	83,883
E. Finished Goods and Others					
Shoes and fashion articles	964	650	680	683	752
Precious metals (excluding gold)	902	741	3,116	11,485	6,967
Precision apparatus	3,750	3,433	4,582	6,240	6,442
Arms and munitions	501	349	610	1,109	1,480
Miscellaneous merchandise	1,704	1,987	2,259	3,054	2,959
Artware	1,918	119	99	267	361
Total (E)	9,559	7,279	11,346	22,838	18,961
Total	308,490	315,311	380,525	476,807	518,589
Gold	38,559	46,369	103,877	50,512	42,494
TOTAL	347,049	361,680	484,402	527,319	561,083

Source: Bulletin Statistique Trimestriel, III, IV, V, VI, VII (Quatrieme Trimestre, 1952, 1953, 1954, 1955, 1956), 4-11. Beirut.

The last group of imports presented in the table under Finished Goods and Others does not constitute an item important enough to warrant any special analysis.

The percentage distribution of merchandise imports, excluding gold, according to the above classification (Table 16) is presented in Table 17. The relative share of each category to the total was more or less constant during the period under construction.

TABLE 17

PERCENTAGE DISTRIBUTION OF MERCHANDISE IMPORTS[a], 1952-1956

Type of Commodity	1952	1953	1954	1955	1956	1952-56 Average
A. Animal and food products	40.0	42.1	39.0	39.6	32.4	37.0
B. Industrial products	32.5	31.8	33.2	31.2	31.2	32.0
C. Building materials	11.6	12.0	11.4	14.2	16.2	13.1
D. Machinery & vehicles	12.7	11.8	13.4	18.2	16.1	14.4
E. Finished goods & others	3.1	2.3	3.0	4.8	3.6	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

[a] Excluding gold imports.

Source: Based on Tabel 16.

Exports

The value of Lebanese exports broken down into four major categories for the years 1952-1956 is shown in Table 18. Animal and food products, particularly fruits and vegetables, constitute the largest single component in the total exports of the country. The prospects for increased exports of fruits and vegetables are very bright as more and more trees become of bearing age, and more land is brought under cultivation.

It is to be noted that most exports under categories B and D are composed of imported goods that have either been processed in Lebanon or of finished goods that have been re-exported. The increasing importance of this category reflects the importance of Lebanon as an "entrepot" for neighboring countries.

The percentage distribution of merchandise exports, excluding gold, is shown in Table 19. Animal and food products averaged 51 per cent of total exports for the years, 1952-1956. The smaller share contributed by industrial products can be attributed to the decline in textile exports. A possible explanation of this situation seems to be that neighboring countries are establishing their own textile industries and perhaps to some extent it is due to the inferiority of Lebanese textiles.

Direction of trade

Lebanon's imports and exports by country of origin or destination are presented in Table 20. Three countries supply about half of all imports. These are Syria, the United Kingdom, and the United States. Unadjusted figures show that the combined share of these three countries in Lebanon's imports ranged between 42 per cent

TABLE 18

MERCHANDISE EXPORTS OF LEBANON, 1952-1956

(Thousands of LL)

Type of Commodity	1952	1953	1954	1955	1956
A. Animal and Food Products					
Live animals and meat products	1,445	2,022	3,562	3,199	4,354
Fruits, vegetables, oils and processed foods	32,057	40,713	52,860	50,444	66,132
Onions	4,380	2,628	3,220	3,805	2,257
Potatoes	753	1,394	1,672	1,048	1,854
Bananas	1,441	1,738	1,829	2,661	3,022
Citrus	7,286	6,396	9,946	9,786	10,367
Deciduous	4,134	4,294	5,435	6,005	7,760
Oils and fats	3,368	3,963	1,668	3,804	4,073
Olive oil	963	2,542	1,146	1,660	2,148
Processed foods and drinks	3,644	3,400	3,802	6,584	9,504
All other	7,051	16,900	25,288	16,751	27,295
Total (A)	33,502	42,735	56,422	53,643	70,486
B. Industrial Products					
Chemicals	1,793	2,224	1,516	1,318	2,276
Hides and leather products	2,680	3,377	3,919	4,507	6,297
Rubber products	233	291	237	323	333
Paper products	1,373	1,640	1,517	1,291	1,800
Textile products	20,534	18,889	9,370	12,371	14,838
Wool in lump	5,830	3,679	2,982	6,052	4,851
Cotton yarn	3,524	3,916	2,039	2,382	600
Cotton cloth	1,785	1,332	710	302	152
Rayon cloth products	482	381	395	475	312
Sacks	1,751	1,182	853	596	439
All other textiles	7,162	8,399	2,391	2,564	8,484
Total (B)	26,613	26,421	16,559	19,810	25,544
C. Construction Materials					
Wood and wood products	1,136	1,190	1,750	2,186	2,650
Stone, ceramics and glassware	1,036	1,865	1,707	1,712	1,917
Mineral products	2,094	2,888	3,158	4,631	1,748
Cement	1,470	1,715	1,858	3,424	1,399
Other	624	1,173	1,300	1,207	349
Common metals and manufactures	6,999	5,197	4,770	7,634	8,284
Total (C)	11,265	11,140	11,385	16,163	14,599
D. Finished Goods and Others					
Shoes and fashion articles	732	581	566	406	422
Precious metals (excluding gold)	73	738	2,523	11,594	8,396
Other exports (1)	5,239	6,094	4,514	6,291	9,920
Total (D)	6,044	7,413	7,603	18,291	18,758
Total	77,424	87,709	91,969	107,907	129,387
Gold	6	--	13,613	12,621	16,408
TOTAL	77,430	87,709	105,582	120,528	145,795

(1) Machinery, vehicles, precision apparatus, arms and munitions, artware, etc. which are for the greater part re-exported articles.

Source: Bulletin Statistique Trimestriel, III, IV, V, VI, VII (Quatrieme Trimestre, 1952, 1953, 1954, 1955, 1956), 4-11. Beirut.

TABLE 19

PERCENTAGE DISTRIBUTION OF MERCHANDISE EXPORTS, (1952-1956)[a]

Type of Product	1952	1953	1954	1955	1956	1952-56 Average
A. Animal & food products	43.3	48.7	61.3	49.7	54.4	51.4
B. Industrial products	34.4	30.1	18.0	18.4	19.7	24.1
C. Construction materials	14.5	12.7	12.4	15.0	11.2	13.1
D. Finished goods & others	7.8	8.4	8.3	16.9	14.5	11.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

[a]Excluding gold exports.

Source: Based on Table 18.

in 1956 and 55 per cent in 1954. Lebanese imports from Syria were largely cereals and cotton, from the United Kingdom textiles, and from the United States machinery and vehicles.

Exports to Syria dropped from 25 per cent of total exports and re-exports in 1951 to 11 per cent in 1956. This was partly due to restrictions imposed by Syria on Lebanese products after the break of the Customs Union in 1950 and to the development of the Port of Latakia in Syria. Lebanon's success in establishing markets in neighboring Arab countries, excluding Syria, is shown by the fact that these countries' shares in Lebanon's exports and re-exports increased from 21 per cent of the total in 1951 to 32 per cent in 1954 and amounted to 26 per cent in 1956.

TABLE 20

PERCENTAGE DISTRIBUTIONS OF IMPORTS AND EXPORTS OF LEBANON BY COUNTRY, 1951-1956

Name of Country	Imports						Exports					
	1951	1952	1953	1954	1955	1956	1951	1952	1953	1954	1955	1956
Syria	20	20	25	22	16	19	25	21	18	19	11	11
United States	16	20	14	15	13	11	25	20	6	6	10	5
United Kingdom	10	11	10	18	16	12	3	2	5	5	5	7
France	12	11	9	8	10	10	4	3	10	5	5	8
Other Arab Countries	11	8	9	8	10	11	21	21	30	32	28	26
Others	31	30	33	29	35	37	22	33	31	33	41	43
	100	100	100	100	100	100	100	100	100	100	100	100

Source: (1951) Republique Libanaise, Direction Generale des Douanes, Commerce Exterieur, 1954 (Beirut: Saikaly Press, 1955), pp. 29-33.

(1952-1956) "Les importations et les exportations resumees par pays de provenance et de destination," Bulletin Statistique Trimestriel, III, IV, V, VI, VII (Quatrieme Trimestre, 1952, 1953, 1954, 1955, 1956), 22-23. Beirut.

Balance of Payments

The first attempt to compile statistics of the balance of payments of Lebanon was undertaken by the Economic Research Institute of the American University of Beirut. Although the study is necessarily subject to a margin of error, it reflects the existing situation. The balance of payments position for the years 1951 through 1954 is summarized in Table 21.

The estimates show surpluses of LL18.9 million in 1951; LL26.3 million in 1952; LL32.9 million in 1953; and LL57 million in 1954. The improvement in 1953 was achieved despite the decline in net receipts from invisibles which occurred mainly in earnings from transit trade. However, the decline in net receipts from invisibles was more than offset by the decline in trade deficit and the increase in emigrants' remittances, and other private capital inflow.

While no balance of payments figures are available for the years 1955 and 1956, several sources state that Lebanon again had a surplus in those years. Dr. Paul Klat of the American University of Beirut has estimated the balance of payments surplus for 1955 at LL43 million.[1] Judging from the movements in official reserves, it seems that the balance of payments position was weaker in 1956 than in 1955. These reserves increased by only LL4 million or the equivalent of $1.2 million, whereas the average annual increase in official reserves from 1952 to 1955 amounted to LL48 million or the equivalent

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[1] Le Commerce du Levant (Beirut) February 29, 1956.

TABLE 21

SUMMARY OF BALANCE OF PAYMENTS POSITION OF LEBANON, 1951-1954

(Millions of LL)

Type of Transaction	1951	1952	1953	1954
Imports	-399.6	-437.5	-413.5	-566.1
Exports and re-exports	140.1	147.1	138.0	195.7
A. Balance of Trade	-259.5	-290.4	-275.5	-370.4
B. Net receipts of invisibles	198.6	188.0	168.6	248.7
C. Total A + B	-60.9	-102.4	-106.9	-121.7
D. Net private donations and capital movements	79.8	128.7	139.8	178.7
E. Surplus on current accounts and private capital movements (C + D)	18.9	26.3	32.9	57.0
F. Compensatory Financing				
Increase in monetary gold (-)	-23.9	-15.4	-13.1	-60.1
Increase in foreign exchange reserves (-)	0.9	-10.4	-20.8	2.0
Bank liabilities to non-residents	4.1	-0.5	1.0	1.1
Total [Compensatory] Financing	-18.9	-26.3	-32.9	-57.0

Source: Secured from the Economic Research Institute, American University of Beirut, Beirut, Lebanon.

of \$14.6 million.[1] The weaker position in 1956 may be attributed to the rise in prices in Lebanon and to increases in the volume of imports in that year.

To understand Lebanon's balance of payments surpluses despite its large merchandise trade deficits, several important factors must be pointed out.

1. There is a sizeable Lebanese population overseas. While few of these emigrants return to Lebanon after making their fortunes, many keep in contact with their relatives back in Lebanon. As a result, emigrants have maintained a constant stream of remittances to Lebanon and have contributed significantly to Lebanon's world-wide trade connections.[2]

2. Beirut, the capital city, forms a natural deep sea harbor with modern facilities and is the center of transit trade. Income from transit trade has been estimated at LL64 million, LL98 million, and LL115 million for the years, 1953, 1954, and 1955 respectively.[3] Important also to Lebanon's commerce is the Free Zone of Beirut, where manufacturing and repacking facilities are provided.[4]

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[1] See Table 23, p. 75.

[2] Emigrants' remittances have been estimated at LL82 million and LL85 million for the years 1954 and 1955 respectively. Banque Libanaise pour le Commerce, Economic Review, No. 36 (Beirut: June,1957), p. 2.

[3] *Ibid*., p. 2.

[4] Traffic in the Free Zone amounted to 350,000 tons in 1954 and 563,000 tons in 1955. International Financial News Survey, VIII (Washington: March 23, 1956), 296.

3. The geographic location of Lebanon as a bridge for three continents, its scenery, its modern tourist facilities, its free exchange market, its air and seaports, have continued to make Lebanon attractive to traders and tourists. The importance of tourism to Lebanon is reflected in the number of tourists and their estimated expenditures in the country as shown in Table 22. In 1955 tourism earned LL120 million--an amount equal to more than the total value of commodity exports and to about 23 per cent of the value of commodity imports in that year. Thus, it can be seen that earnings from tourism alone would pay for nearly one-fourth of all commodity imports. Yet, it is significant to note that investment in tourist facilities in 1955 amounted to only LL8 million,[1] or just 5.1 per cent of total private investment in that year.[2]

4. The relative internal stability of Lebanon has lured many foreign firms to move or establish regional offices in Beirut. Capital funds have sought safety in Lebanese banks. These capital transfers have been estimated at about $15 million annually since 1951.[3] The Government is encouraging such capital transfers. A law enacted in September, 1956, provides that professional secrecy must be observed by banks. Under this law banks are bound, insofar as their customers are concerned, not to disclose their customers' names nor the amount

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[1] U.S. Department of Commerce, Economic Developments in Lebanon, 1955 (Washington: 1956), p. 1.

[2] See Chap. II, Table 7, p. 25.

[3] Paul Klat, "The Future of Economic Development in the Arab World," Middle East Economic Papers, 1956 (Beirut: American University of Beirut, 1956), p. 61.

TABLE 22

NUMBER OF TOURISTS VISITING LEBANON AND ESTIMATED EARNINGS FROM TOURISM, 1951-1956[a]

(Tourists in 1,000; Expenditures in Millions LL)

Category	1951	1952	1953	1954	1955	1956
Number of visitors	127.2	298.4	387.8	899.0	1,162.0	1,120.0
Estimated expenditures by tourists	35.0	50.0	80.0	110.0	122.0	120.0

[a] The discrepancy between the increase in visitors and the increase in tourist expenditures is to be accounted for by the fact that many of the visitors were in transit.

Source: (1951-1952) Edward Fei and Paul Klat, Balance of Payments of Lebanon, 1951 and 1952 (Beirut: American University of Beirut, 1954), p. 28.
(1953-1955) Banque Libanaise pour le Commerce, Economic Bulletin, No. 25 (Beirut: March,1956), p. 5.
(1956) Middle East Economist, XI (July,1957), 107.

of their holdings, except written authorization of the clients or in the case of bankruptcy.[1]

5. The defacto absence of exchange controls has made Beirut one of the leading foreign exchange markets in the world.[2]

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[1] The full text of the Banking Secrecy Law can be found in Le Commerce du Levant (Beirut) November 21, 1956.

[2] Although references are made to "official" and "free" market rates of exchange which imply exchange controls, such implication is not warranted. The "official" rate is used only for government transactions such as the assessment of the value of imports for tariff purposes. All other transactions are made at the "free" market rates without any government interference. See pp. 76-77.

6. Foreign cultural institutions are deeply rooted in Lebanon. To mention a few, there are the American University of Beirut and Universite St. Joseph. These universities receive donations from abroad and also provide advanced training for a large number of students from the less educationally-developed Asian countries. Furthermore, the hospitals of these universities provide medical services to many countries in the Middle East.

7. The American economic aid program has also contributed to the strength of the balance of payments of Lebanon. Total American aid to Lebanon from 1952 to mid-1956 amounted to $23.4 million or the equivalent of LL70 million.[1]

Having pointed out the general framework of Lebanon's international trade position, it becomes understandable, perhaps, that the merchandise trade deficits that occur each year with the outside world are covered by earnings from a multitude of services such as exchange and gold operations; transit trade; tourism; emigrants' remittances; donations to institutions; capital transfers; and other transactions.

International Reserves

As a result of the favorable balance of payments position, Lebanon has succeeded in recent years in building up substantial gold and foreign exchange reserves. As indicated in Table 23, total reserves increased from $38.5 million in 1950 to $98.9 million in 1957. The sharp increase in gold holdings from $20 million in 1950 to $91.2 million in 1957 resulted partly from the liquidation of French franc assets which declined from $16.1 million in 1950 to $6.5 million in

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[1] New York Times, June 4, 1956, p. 1.

TABLE 23

OFFICIAL INTERNATIONAL RESERVES OF LEBANON, 1950-1957

(In millions of U. S. dollars)

End of Year	Gold	French Francs	Pound Sterling and U.S. Dollars	Total Foreign Exchange	Total Gold and Foreign Exchange
1950	20.0	16.1	2.4	18.5	38.5
1951	26.3	12.0	1.2	13.2	39.5
1952	30.6	10.9	.7	11.6	42.2
1953	34.7	12.8	7.7	20.5	55.2
1954	63.1	11.6	2.4	13.0	76.1
1955	73.7	10.1	2.7	12.8	86.5
1956	77.2	7.3	3.2	10.5	87.7
1957	91.2	6.5	1.2	7.7	98.9

Source: International Monetary Fund, International Financial Statistics, IX, No. 6 (Washington: June,1958), 168-169.

1957 and partly from purchases of dollars by the Exchange Stabilization Fund and the conversion of these into gold.

On the other hand, complete figures on private Lebanese gold and foreign exchange holdings are not available. However, private Lebanese dollar holdings in the New York Federal Reserve District, as reported by the International Monetary Fund, amounted to $28 million at the end of 1957.[1] In addition, private (residents and nonresidents of Lebanon) deposits in foreign exchange with banks in Lebanon amounted to $22 million at the end of 1955.[2] Figures on private Lebanese holdings abroad in sterling and other European currencies are not available.

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[1] International Monetary Fund, International Financial Statistics, IX, No. 6 (Washington: June,1958), 168-169.

[2] Information secured from a source known to be reliable.

The Exchange System and Exchange Rates

Exchange restrictions in Lebanon were first established in 1939 by the French authorities and an exchange office was set up for the purpose of administering such controls. In July,1947,the official par value of the Lebanese pound was accepted by the International Monetary Fund at LL2.1914/1$U.S. On September 7, 1948, Lebanon established an Exchange Control Office which was charged with the official purchase and sale of foreign exchange.[1]

The Government of Lebanon, however, soon began to realize that the economy can best thrive with a minimum of controls. A free exchange market is basic for a predominantly service economy. Gradual relaxation of exchange controls began in November, 1948, when the recognition of the "free market" was brought about by Decree No. k/13532.[2] By the end of 1952,all exchange controls were completely abolished.[3] The absence of exchange controls means freedom to transfer earnings and to repatriate capital at any time and for any account without limitations.[4]

Although Lebanon does maintain some trade controls, this is not necessarily incompatible with prevailing freedom in the foreign exchange market. Import controls seem to cater to the interests of home industries. Tariffs have also in some instances been used to protect home industries but are primarily revenue producing.

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[1] Republic of Lebanon, Ministry of Finance, Collection of Laws of Lebanon, Monetary Laws, Decree No. k/13051 (Beirut: July 29, 1947), p. 55. Arabic.

[2] Ibid., pp. 123-124.

[3] For a summary of relaxation of exchange controls, see International Financial Statistics, V, No. 10 (October, 1953), 112.

[4] International Monetary Fund, Sixth Annual Report on Exchange Restrictions (Washington: 1955), pp. 227-228.

With the exception of Government transactions which are still conducted at the official rate, viz., LL2.20/1$U.S, all exchange transactions are made at the free market rate. The official rate is used in accounting for government income and expenditures in foreign currencies and for calculations of import duties based on the value of imports converted at the official rate. This method of calculation of foreign trade statistics overvalues imports from Syria and undervalues imports in other currencies. This is because importers acquire foreign exchange in the free market where the Syrian pound is bought at a discount,[1] while the sterling and dollars are bought at a premium[2] relative to the official price of these currencies.

Since the complete abolition of exchange controls in 1952, the foreign exchange value of the Lebanese pound has been rising. Before that time the free exchange rate was LL3.73/1$U.S. With complete relaxation of controls the exchange value of the Lebanese pound has risen and in 1957 the rate was LL3.18/1$ U.S. This change in the free market rate between the Lebanese pound and the U. S. dollar represents an increase of more than 8 per cent in favor of the pound.

A summary of movements in exchange rates is presented in Table 24. The free market rate was fairly stable in 1951 and 1952 ranging

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[1] This discount varied between a low of 6 per cent in 1953 to a high of 13 per cent in 1957. Bulletin Statistique Trimestriel, IX (Deuxieme Trimestre, 1958), 59.

[2] See Table 24.

TABLE 24

EXCHANGE SELLING RATES IN BEIRUT MARKET OF LEBANON, 1950-1957

(LL per unit of currency)

Foreign Currency	Annual Average								
	1949	1950	1951	1952	1953	1954	1955	1956	1957
U. S. Dollar	3.27	3.47	3.73	3.66	3.42	3.22	3.24	3.22	3.18
Pound Sterling		9.07	9.42	9.37	9.31	8.88	8.95	8.91	8.82

Source: Bulletin Statistique Trimestriel, IX (Deuxieme Trimestre, 1958), 59.

between LL3.80 and LL3.70/1$U.S. During 1953, however, the U. S. dollar as well as other major currencies declined substantially in value in terms of the Lebanese pound. From 1954 to 1957, there was a remarkable stability in exchange rates; the dollar narrowly fluctuating between LL3.26 and LL3.18. This stability was achieved by the one-sided intervention of the Exchange Stabilization Fund. The Stabilization Fund has not so far intervened on the selling side of the foreign exchange market.

The Exchange Stabilization Fund was set up in October, 1949, for the purpose of ironing out undue fluctuations in exchange rates without resisting general trends or defending any appropriate rate of the Lebanese pound.[1] The Fund, however, did not begin its operation until September, 1953, when it bought dollars in the market to ease the monetary stringency following the Korean War.[2] As the Fund has no assets of its own, it utilizes the deposits of the public agencies and other deposits with the BSL. Foreign exchange purchased by the Fund on behalf of and for the account of the Government is converted into gold and turned over to the Issue Department of the BSL against the increase in note issue.

Commercial Policy

Commercial policy in Lebanon is based primarily on the conviction that the country can prosper only through a maximum freedom of trade. The Government, however, has been caught between the alternatives of free trade desired by the merchant groups and the protection desired by industrial interests. The commercial groups argue that Lebanon, which earns about 60 per cent of its national income from services, cannot afford to erect barriers to trade and exchange. Furthermore, Lebanon, being a producer of services rather than goods, must aim at a policy of free trade and reduce its customs barriers. The industrialists, on the other hand, maintain that because Lebanon earns 60 per cent of its national income from services the economy is exposed to wide fluctuations in world trade and financial activities. The industrialists argue further that Lebanon must seek to diversify its economy and must have a wider economic base.[1]

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[1] Albert Badre, "Economic Policy in Lebanon," _Les Conferences du Cenacle_, X (June, 1956), 361.

[2] _Ibid._, p. 362.

Faced with a continuing struggle between merchants and industrialists, the Government is attempting to solve the problem by reducing considerably the list of goods requiring import licensing[2] and raising import duties on items considered by the Government competitive with domestic industry.[1] At the same time, it has reduced duties on machinery, raw materials, and semi-finished goods required for the manufacture of Lebanese products.[2]

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[1] The views of the industrialists are advanced by Mr. Phillip Tamer, Secretary of the Association of Lebanese Industrialists in *Banque Libanaise pour le Commerce*, No. 4 (Beirut: July,1953), pp. 1-2, and again in the *Commercial and Industrial Review*, No. 7 (Beirut: May 1954), p. 18. Arabic. The views of the merchants are expressed by Mr. Emile Eddie, member of Parliament and merchant, in *Parliamentary Report*, 1954 (Beirut: 1954), pp. 590-591. Arabic.

[2] The list of goods for which Lebanese import licenses must be obtained before shipment to Lebanon is found in *L'Economie Libanaise et Arabe*, "Les reglements du commerce exterieur du Liban et les listes des marchandises dont l'importation ou l"exportation sont soumises a la licence preable," No. 21 (Beirut: January,1954), pp. 24-27. Subsequent deletions from the list are reported regularly in *Foreign Commerce Weekly*. A partial listing of goods removed from the list includes dried and preserved fruits, wine vinegar, cologne, fruit juice, alcohol, matches, silk pieces, toy games, soap, cigarette paper, cement products, aluminum sheets and foil, textiles and industrial machinery, and crude iron and steel.

The Government is being constantly urged by the industrialists and farm groups to find new markets for their products through trade and payment agreements with other countries. Such agreements were concluded in 1953-1956 with East and West Germany, Czechoslovakia, Rumania, Bulgaria, USSR, Mainland China, Poland, France, Turkey and Italy.[3] Lebanon also signed the Inter-Arab Trade and Payments Agreement which calls for the reciprocal reduction of duties by 25 per cent on industrial goods.[4]

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[1] In line with this policy, duties have been increased on imports of vegetable oils, chocolates, confectionaries, and other products. It is sufficient here to give a partial list of specific items affected and their duties (ad valorem), with former rates shown in parentheses. These include vegetable oils, 35 (25); sweetmeats, 35 (25); chocolate products and jams, 40 (25); pottery and fancy ceramics, 40 (35); cement products, (40 (25); soap powder, 50 (25); and cardboard, 40 (25). From Foreign Commerce Weekly, 1954 and 1955.

[2] Specific items affected and their duties (ad valorem), with former rates shown in parentheses are as follows: Chemicals used in Lebanese industries, free (25); spindles, bobbins, and other articles used in spinning, 1 (25); tractors with internal combustion engines, 1 (10); machines intended for bottling, labeling, packing, etc., 1 (7.5); crude iron and steel in blooms, free (11); unmanufactured pieces of lead and tin, free (25); minerals used in Lebanese industries, 11 (25); cellulose by-products, including tubes destined for the envelope industry, 1 (25); printed cellophane paper intended for packaging of domestic products, 11 (25); figured paper in sheet intended for fruit wrapping, free (20); blue paper in rolls intended for covering match boxes, free (25); rubber bands and threads intended for industry, free (11); meat meal and fish meal used as fodder, free (25); and flux and similar subsidiary compounds used in iron works, 1 (25). From Foreign Commerce Weekly, 1954 and 1955.

[3] Texts for these agreements can be found in the Parliamentary Reports, 1953-1955, Beirut, and in l'Economie Libanaise et Arabe, Issues of 1954.

[4] Banque Libanaise pour le Commerce, Economic Review, No. 6 (Beirut: December,1953), p. 2.

PART II. NATURE AND REQUIREMENTS OF THE DEVELOPMENT PROJECTS

CHAPTER IV

CHARACTERISTICS AND SIGNIFICANCE OF THE DEVELOPMENT PROJECTS

This study so far has described the Lebanese economy. With this description as a background, this chapter will describe the nature of the Litani River Project and of the other proposed development projects, and will contain an evaluation of the significance of Phase A of the Litani Project and of the total development program. This evaluation will not be confined simply to the positive contributions of the program but will also indicate the disadvantages that will result from the implementation of the projects.

Features of the Litani Project

The Litani is the largest of Lebanon's numerous rivers; it originates in the Baalbeck watershed and pursues a southerly course through the Bekaa Valley, then turns west to empty into the Mediterranean near the Biblical city of Tyre.[1]

No single overall and extensive study for the full utilization of the Litani waters was made until recently. The latest studies of the multipurpose development of this river were completed in 1954 by the United States Point Four Mission to Lebanon as part of American technical assistance. The Point Four Mission Report on the Litani was submitted in three volumes to the Lebanese Government in July, 1954, with three additional volumes of appendixes.

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[1] See Figures 2 and 3.

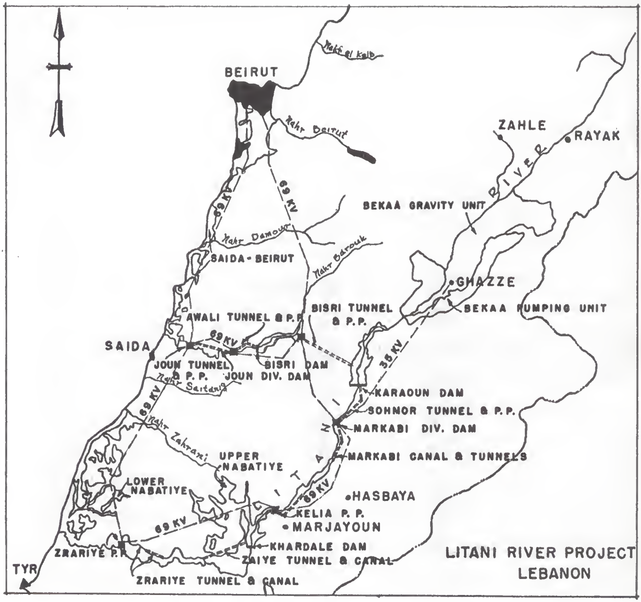

Fig. 2 Total plan of development of the Litani Project.

Source: Secured from the U.S. Foreign Operations Mission, Lebanon.

The Lebanese Parliament passed a law on August 14, 1954, for the establishment of the National Litani Office with a ten-member Board of Directors. On the same date the Parliament established a fund of LL5 million for the organization of this office and the recruitment of its personnel. The National Litani Office has the following purposes: (1) to implement the Litani River Project for irrigation and electricity; (2) to construct inter-connecting transmission systems between electric generating plants in Lebanon; and (3) to construct sub-stations and distribution systems in all Lebanese districts.[1]

Total plan of development of the Litani

The total plan of development comprises the construction of three storage reservoirs, one at Karoun with a capacity of 200 million cubic meters, one at Khardale of 82 million cubic meters, and a third one at Bisri River of 33 million cubic meters, bringing the total storage to 315 million cubic meters.[2] The use of these reservoirs would provide a better regulated flow and would enable part of the Litani to be diverted through a transmountain tunnel into the Bisri River to produce power and to irrigate the coastal strip between Saida and Beirut.

Power installations of 171,000 kw will be installed in six power plants. This hydro-energy will be coordinated with thermal power[3] in order to have a net additional total-installed capacity of

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[1] "Loi Portant Creation du Service National du Litani," L'Economie Libanaise et Arabe No. 27 (Beirut: September, 1954), pp. 51-53.

[2] FOA Report, Vol. I, p. VIII-4. The Bisri River is a small stream which will utilize the waters of the Litani which will be directed through a tunnel.

[3] *Infra*, thermal power under extraordinary projects, pp. 106-107.

286,000 kw.[1] At the end of 1956, total installed capacity of power plants in Lebanon was 38,732 kw.[2] The net increase in installed capacity, therefore, will be 321 per cent. A network of 69-kv and 33-kv transmission lines will interconnect the hydro and thermal power installations with the Beirut area which is the consumption center of electricity. The six hydro-plants will supply about 626 million kwh during an average year.[3] The project also calls for the construction of irrigation works which will furnish water to 21,599 hectares of land located in five irrigation units as listed in Table 25.

TABLE 25

LITANI IRRIGATION PLANS

Unit	Phase	Area (in Hectares)	Annual Water Requirements (in millions of cubic meters)
Bekaa Gravity	A	5,700	38.3
Bekaa Pumping	B	4,700	46.4
Upper Nabatieh	B	3,500	30.5
Lower Nabatieh	B	3,700	35.2
Beirut-Saida	A	3,900	36.6
		21,500	187.0

Source: FOA Report, Vol. I, p. V-5.

For the orderly development of the multiple purpose project, two phases of construction were recommended by the Point Four Mission.

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[1] FOA Report, op. cit., p. VIII-2.

[2] U. S. Department of Commerce, Economic Development in Lebanon, 1957 (Washington: 1958), p. 6.

[3] FOA Report, op. cit., p. VIII-3.

These were designated as Phase A and Phase B. The completed project will include:[1]

44 kilometers of tunnels
24 kilometers of power canals
272 kilometers of transmission lines
202 kilometers of irrigation canals
3 dams
6 power plants and 6 sub-stations

Phase A, with which this study will be concerned, includes partial construction of the Karoun Dam and Reservoir, construction of the Bekaa Gravity and Beirut-Saida Irrigation Units, construction of the Bisri Tunnel, construction of two power plants having an initial installed capacity of 110,000 kw,[2] and the construction of necessary transmission lines and sub-stations. About six years and a cost of about LL146 million, the equivalent of about $45 million, would be required for the completion of these components.[3]

Phase B, with which this study is not directly concerned and which therefore will not be discussed in detail, would include completion of the Karoun Dam, construction of the remaining three irrigation units and four power units, and completion of the transmission network. This second phase of the project is recommended to be completed during a 19-year construction period at a cost of about LL195 million or the equivalent of $60 million.[4]

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[1] Ibid., p. VIII, 3-6.

[2] Saleem Lahhoud, Chairman, Board of Directors, National Litani Office, "The Litani: Some Economic Political And Technical Aspects," Les Conferences du Cenacle, X (February, 1956), 115. Arabic.

[3] Republique Libanaise, Office National du Litani, Charte Organique (Beirut: 1955), mimeographed.

[4] FOA Report, op. cit., p. IX-3.

Phase A of the Litani Project

For purposes of this study, the analysis will be confined to Phase A of the Litani Project and to other projects which are being executed concurrently. These projects are either complementary to Phase A or their nature is such that it is considered impossible to postpone them. Consequently, to appraise the impact of only the Litani Project (Phase A) on the Lebanese economy would be unrealistic. Nevertheless, major emphasis will be placed on Phase A of the Litani project.

The reasons for emphasizing Phase A are: (1) Detailed and final technical plans for this phase have been prepared while such is not the case with Phase B, (2) Phase A is more immediate in the sense that it is being carried out over a short period of time while Phase B is a long-run development plan extending over a period of 19 years after the completion of Phase A. The impact of the development of Phase A on the economy can, perhaps, be discussed with more certainty than that of Phase B, (3) A $27 million loan from the International Bank has been granted for Phase A while no arrangement to finance Phase B has even been discussed.

The main purposes of the construction of Phase A are to supply Lebanon with about 425 million kwh of energy per year and to irrigate 9,600 hectares of land. The principal works to be constructed as part of this phase are described below:[1]

(1) Karoun Dam and Reservoir: This dam will be constructed on the Litani River at the south end of the Bekaa Valley. The dam will be about 47 meters high and 900 meters long and will create a

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[1] FOA Report, ibid., p. VIII 3-6; The International Bank for Reconstruction and Development, Press Release (Washington: August 26, 1955); and Lahhoud, op. cit., p. 107. See Figure 3, p. 89.

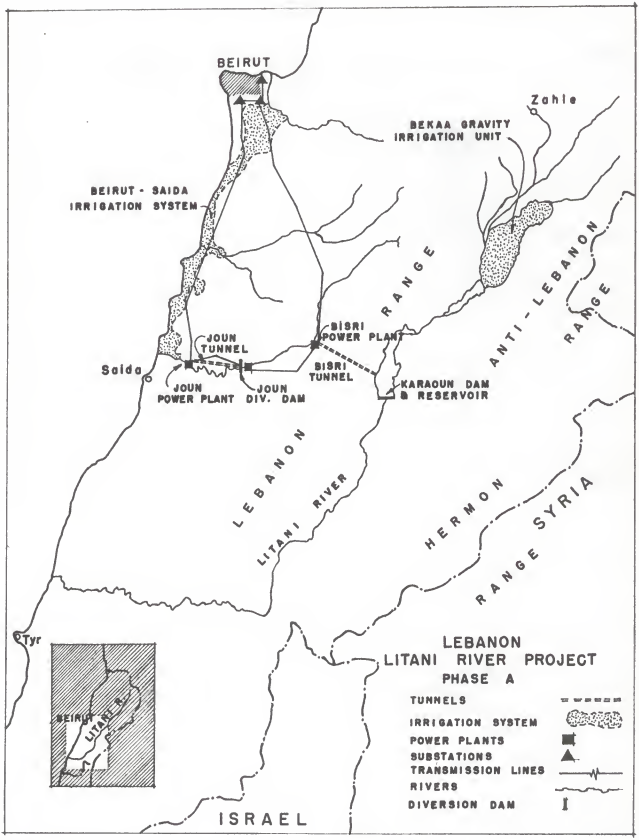

Fig. 3 Units to be constructed under Phase A of the Litani Project.

Source: Secured personally from the International Bank for Reconstruction and Development. Washington.

reservoir with an initial capacity of about 60 million cubic meters.

(2) Bisri Tunnel: This will be a transmountain concrete-lined pressure tunnel and will divert water from the Karoun Reservoir to the Bisri River. It will have a diameter of 2.4 meters and a length of 9.5 kilometers.

(3) Bisri Power Plant: The Bisri power plant will be built on the Bisri River with an initial capacity of about 75,000 kw. It will receive water from the Bisri Tunnel through suitable surge tank and penstock under a head of about 400 meters.

(4) Joun Diversion Dam and Tunnel: The Joun Diversion Dam will be about 18 meters high and 90 meters long and will be built on the Bisri River. It will divert water into a tunnel about 6.4 kilometers in length and about 2.8 meters in diameter which will terminate in a surge tank and penstock for purposes of generating power and irrigating the Beirut-Saida coastal strip.

(5) John Power Plant; This plant will take its waters from the Joun Tunnel and will have an installed capacity of 35,000 kw operating under a head of about 165 meters.

(6) Transmission Lines and Sub-Stations: About 60 miles of 69-kv double circuit transmission lines and about 25 miles of 33-kv transmission lines will connect the Bisri and Joun power plants with the Beirut power system. Six sub-stations will also be constructed.

(7) Beirut-Saida Irrigation Unit: This unit lies along the coastal plain extending from Beirut to Saida, a distance of about 25 miles. A total of about 3,900 hectares will be irrigated in this strip which is now partly cultivated. Because of favorable climate, this area is ideally suited to the growing of bananas, citrus fruits, and vegetables, which are important exports of Lebanon. Water for

this unit will be supplied through the Joun Tunnel connected with the main canal with a length of about 3.5 miles. Several major and minor structures will be constructed as part of this unit. These include siphons, bridges, turnouts, culverts, and stock watering ramps.

(8) Bekaa Gravity Irrigation Unit: Although this unit is considered a part of the Litani scheme, it is completely independent of the construction of other units because it draws its water requirements from the Anjar and Chamsine Springs and not from the Litani River. Earth foundation dams will be constructed below each of the springs to raise the water sufficiently to reach the land and to provide a small amount of storage. The two reservoirs will be connected with canals the length of which will be 27 miles and will serve about 5,700 hectares of land. Major and minor structures include siphons, turnouts, bridges, stock watering ramps, and drainage ditches.[1]

Early in the year 1955, the National Litani Office issued a first invitation for bids for the construction of Phase A. Fifty-two firms representing seventeen nationalities responded to the invitation. On April 14, 1955, fifteen firms were selected to participate in the final bidding.[2] Contracts for engineering works were awarded to a French group of engineers in October, 1956.[3] Bids for actual construction contracts were awarded to a French-Italian group and work began on September 22, 1957.[1] No information is available to permit a comparison between the original Point Four estimates and the value of contracts awarded.

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[1] FOA Report, Vol. II, pp. XVII, 1-2.

[2] Letter from Mr. L.J. Snyder, Chief, Natural Resources Division, U.S. Operations Mission to Lebanon, dated April 17, 1955.

[3] U.S. Department of Commerce, Economic Developments in Lebanon, 1955 (Washington: 1956), p. 5.

Economic Significance of Phase A of the Litani Project

The economic significance of Phase A of the Litani Project is measured by its contribution to the productive capacity of Lebanon and the standard of living of the people. The project under review will contribute to productive capacity in two major areas: to agricultural production through the irrigation of arid lands, and to industrial production through the generation of electricity. The generation of electricity will also provide power for the increased utilization of electrical appliances and thereby contribute directly to consumption. The benefits to be derived from Phase A will now be examined.

Significance of Irrigation

Where natural rainfall is not sufficient, irrigation provides a regulated water supply for agricultural land. It will increase production of crops to the benefit of the whole economy and especially to the rural sector that depends on the land for its income. The heavy concentration of rainfall during the winter season, followed by a long dry summer, results in an unsteady flow of water. It is the adverse affects of this unsteady flow of water which must be mitigated through extensive irrigation systems by use of storage water. The Karoun Dam under Phase A will provide such storage.

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[1] Republic of Lebanon, National Litani Office, Inauguration of the First Phase of the Litani Project (Beirut: September 22, 1957), Arabic.

The monetary benefits to be realized include not only the increased value of products marketed, but the increase in products consumed by the farm family as well. The value to be added by irrigation is computed by comparing the value of agricultural production from areas now irrigated with the value of production from lands that are not irrigated.

Bekaa Gravity Unit.--Investigations made by the United States Mission to Lebanon indicate that, in the Bekaa Gravity Unit,[1] income from dry land crops are LL253 per hectare and from irrigated land LL948.6 per hectare per year. Irrigation means, then, a difference of LL695.6 per hectare. Since the total area to be irrigated by the Bekaa Unit is 5,700 hectares, of which about 1,425 are already under irrigation, the increase in newly irrigated land will be 4,275 hectares. The benefits to be contributed by this irrigation unit are therefore estimated at LL2,974,000 per annum.

Beirut-Saida Unit.--The land included in the Beirut-Saida Irrigation Unit (3,900 hectares) is not irrigated at present.[2] Two thousand hectares of this area are devoted to the growing of olives. The remainder (1,900 hectares) is divided between field crops (900 hectares) and grazing (1,000 hectares). It is proposed that olives be removed from this unit and citrus and bananas be planted instead. It is also proposed that the 1,900 hectares be entirely devoted to the growing of vegetables and specialty crops. The net result of these shifts in land utilization will be the conversion of 2,000 hectares of olives to citrus and will bring an additional 1,000 hectares under irrigation which are currently used for grazing. Olive grove owners "stated that if the proposed irrigation unit were constructed they would remove their olive trees and plant citrus fruit."[1]

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[1] The economic analysis of the Bekaa Gravity Unit is found in FOA Report, Vol. I, pp. V27-28.

[2] The economic analysis of Beirut-Saida Unit is found in ibid., pp. V-51-55.

Annual value of olive production is estimated at LL1,000 per hectare and annual returns from bananas and citrus are estimated at LL2,000 hectare. The returns from vegetable crops are estimated at LL750 per hectare per year. According to the FOA Report, the conversion of the area to citrus and vegetables will result in an estimated additional net farm income of LL2,342 per year after due allowance is made for the loss of about LL2 million in olive production.[2]

Economic Significance of the two Irrigation Units.--The latest available data (1954) show that 50,000 hectares of land were under irrigation. Completion of Phase A of the Litani Project, as noted above, will bring under irrigation an additional 8,175 hectares, an increase of slightly more than 16 per cent. In 1956 the total value of agricultural production was LL284 million, while the annual value added to agricultural production by the Bekaa Gravity and Saida-Beirut Units would amount to LL5,316,000. This shows an increase in total agricultural income of about 2 per cent.

Although the 2 per cent per year increase in the value of agricultural production resulting from irrigation seems small, it is nevertheless significant. The annual addition from the two units (LL5.3 million) is large compared to their total costs (LL10.8 million). Even if the comparison is made to the total costs of the irrigation units plus the Karoun Dam and Reservoir (LL32.7 million), the annual return is 16 per cent of total costs. Furthermore, the completion of Phase B of the project will bring an estimated additional 11,900 hectares of land under irrigation which will further spread the costs of the dam and reservoir construction included in Phase A. Finally, the additional production contributed by irrigation means an increase of about LL50 in the per capita income of the people directly affected by the two irrigation units.[1]

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[1] Ibid., p. V-52.

[2] Ibid., p. V-55.

Land acquisition and land values

Land acquisition.--Phase A of the Litani Project calls for the acquisition of 760 hectares of land. The main task at this point is (1) to assess the loss in agricultural income resulting from such acquisitions, (2) to compare this loss with the total gain that will result from irrigation, and (3) to analyze briefly the resettlement problem resulting from such acquisitions.

Of the 760 hectares that need to be acquired, 578 hectares are under cultivation, the remainder lying uncultivated. Of this 578 hectares, 33 hectares are under irrigation.[2] The cultivated area is planted in wheat. Half the irrigated area is planted in onions; the other half is planted in potatoes.

Data on crop returns presented in the FOA Report[3] indicate that the losses that will have to be sustained as a result of acquisitions of agricultural land for dams, reservoirs, and canals, will amount to about 400 metric tons of wheat valued at about LL140,000. Returns on the presently irrigated land are calculated at about 190 metric tons of potatoes and 218 metric tons of onions valued at about LL23,000 and LL17,000, respectively. The reduction in total farm income resulting from land acquisition will, therefore, amount to LL180,000 annually. This reduction amounts to less than one tenth of 1 per cent of total agricultural income in 1956 and to little over 3 per cent of the gains expected in agricultural income from the proposed irrigation units. The net effects of these reductions in agricultural income will mean (1) a reduction in total benefits derived from irrigation; (2) an increase in the importation of wheat by the amount of reduction of output since Lebanon is heavily dependent on imports of cereals; and (3) some reductions in the exportation of onions and potatoes.

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[1] It is estimated that in 1956 a total of 103,670 persons inhabited villages in the areas included in the Bekaa Gravity and Saida-Beirut Irrigations Units. Information secured from the National Litani Office (Beirut) by letter dated August 9, 1960.

[2] FOA Reports, Vols. I and III, Estimate Tables.

[3] Based on 1951 crop returns and prices. FOA Report, Vol I, pp. 31-35; II, p. XIV-20 and Table XIX-7.

Land values.-- As the construction of Phase A of the Litani Project proceeds, land values may be expected to increase. The rise in such value in the completed Kasmieh Irrigation Project in South Lebanon warrants this assumption. The Kasmieh Project which irrigates a total of 4,500 hectares[1] by gravity flow, was started in 1946 and completed in the early part of 1955.[2] The price of one hectare of land located in the Kasmieh area has risen from LL2,500 in 1946 to LL25,000 at the present time.[1] This rise in the price of land is in far greater proportion than the general rise in prices (see Table 41). It is to be concluded, therefore, that this spectacular rise is due primarily to a combination of an increase in the productivity of land and resulting speculative activity. If land values in the proposed irrigation units should increase proportionately, the completion of Phase A will add about LL180 million to the value of land. If this figure (LL180 million) is compared with the absolute increase in the potential value of crops (LL5.3 million) the ratio is found to be 36:1. This increase in the value of land seems to be far beyond what could be considered justifiable by expected yields. However, our interest at this point is the period of construction and does not extend beyond that. Furthermore, it must be noted that the rise in the value of land in the case of the Kasmieh Irrigation Project was due in part to land speculation from the period 1946, the date of launching the project, to the year 1955--about 10 years. Another point to be emphasized is the fact that the productivity of land in the immediate vicinity of the reservoirs and in the proposed irrigation units of Phase A of the Litani is below that of the land in Kasmieh Project.[2] This undoubtedly will have a dampening effect on the price increases for land. But as a safeguard against rising land prices during the period of construction beyond that which may be considered justified by expected yields, it may be necessary for the Government to draft certain laws designed to prevent land speculation in the Litani Basin.

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[1] United Nations Relief and Works Agency for Palestine Refugees, Quarterly Bulletin of Economic Development No. 11 (Beirut, July 1954), p. 120.

[2] Edward Manassah, Latest Plans for Utilization and Development of the Litani Basin (Beirut: 1955), p. 21. Mimeographed.

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[1] *Ibid.*, p. 21.

[2] Menassah, *ibid.*, p. 21. estimated the net value of crops per hectare in the Kasmieh Project at LL3,330 per year, which exceeds the net returns per hectare on the Bekaa and Saida-Beirut units.

Problems of shifts in land utilization in the Beirut-Saida irrigation unit

The construction of the Beirut-Saida Irrigation Unit requires consideration of a special short-run problem. Irrigation plans for this unit, as recommended by the FOA Report, call for the removal of olive trees from the 2,000 hectares which are included in this unit and the planting of these in citrus. This shift of what amounts to about 12 per cent of the total hectarage devoted to olives[1] will be made during the last two construction years of the Litani Project. The FOA Report failed to consider the immediate difficulties arising from land conversion. In the first place, the FOA Report assumes that this shift in production can be accomplished without resistance on the part of farmers.[2] This assumption seems unrealistic in view of the preponderance of small land holders in the area of the Saida-Beirut Unit.[3] The traditional feelings among these small land holders is not to relinquish a customary and fairly satisfactory type of production for another which is new and the adaptability of which is uncertain. The seriousness of this problem can be made crystal clear when consideration is given to the importance of olive crops to the consumption and general economic patterns of these farmers. They exist on a current crop basis. Olives form a basic diet and the portion of the crop not eaten is marketed and therefore indirectly provides other necessities. Furthermore, the great majority of land holders are probably unable financially to withstand the loss of income during the shift,[1] to say nothing of the additional expense necessary for uprooting olives and setting out new citrus orchards. This will undoubtedly stiffen the resistance to the anticipated change.

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[1] Total land planted in olives was estimated at 17,000 hectares in 1954. Alfred Chamoun, "The Ministry of Agriculture," Studies on the Government of Lebanon (Rajah Himadeh, ed.) (Beirut: 1956, Dar-Al-Founoun Press), p. 196. Arabic.

[2] The FOA Report indicated that olive grove owners, "stated that if the proposed irrigation unit were constructed they would remove their olive trees and plant citrus instead." FOA Report, Vol, I, p. V-52.

[3] Since there are "only 28 operators of the total 7,145 [that] farm more than ten hectares . . . it appears that any land tenure problems on this unit (Beirut-Saida) will be in connection with the existence of too many small units rather than with those that are overly large." FOA Report, Vol. I, p. V-52.

In the second place, the FOA Report fails to provide interim measures for the maintenance of farmers affected by the process of changeover from olive to citrus production. The most efficacious measure would be the provision of liberal long term loans to enable farmers to undertake the task of setting out and caring for the new citrus orchards. This measure should be supplemented, however, by plans to plant the land affected by this changeover in vegetables, for which there is a ready market in Lebanon. Such a supplemental measure might possibly offset the temporary loss in income resulting from the destruction of olive trees. Another possible measure to allay the problem of transition would be to give the nearby farmers employment in construction on a preferential basis when they are unemployed on the farm.

Finally, the FOA Report fails to consider the loss of foreign exchange earnings because of loss of olives during the period of construction. The assumption here is that the loss of olive production will probably be felt in exports, since it is not expected that Lebanese consumers will reduce their consumption of olives and olive oil. As can be seen in Table 26, however, the proceeds from exports of olive oil are not very significant in terms of total foreign exchange earnings. Furthermore, the volume of olive oil exports and their value are erratic depending on world prices and the outcome of crops.[1] Nevertheless, as the demand for foreign exchange intensifies as a result of the launching of the development projects, no effort should be spared to augment rather than to reduce foreign exchange earnings.

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[1] According to the FOA Report, the loss of olive production in the Beirut-Saida Unit is estimated at LL2 million per year. FOA Report, Vol. I, p. V-55.

TABLE 26

WEIGHT AND VALUE OF OLIVE OIL EXPORTS FROM LEBANON, 1952-1956

(Weight in thousands of metric tons; value in thousands of LL)

Year	Weight	Value
1952	0.6	963
1953	1.2	2,542
1954	0.5	1,146
1955	1.2	1,660
1956	1.7	2,148

Source: Bulletin Statistique Trimestriel, III, IV, V, VI, VII (Quatrieme Trimestre, 1952, 1953, 1954, 1955, 1956), 4-11. Beirut.

Instead of taking 2,000 hectares out of olive production under the proposed gravity irrigation plan, it might be preferable to irrigate by pumping at higher elevation west of the now contemplated area.[1] This would preserve the 2,000 hectares of olives and thus possibly avoid some of the difficulties discussed earlier. However, this plan presents several problems: the cost of irrigation by pumping is higher than by gravity flow as now contemplated and this would, therefore, involve additional project costs--foreign and domestic. The land which lies at higher elevation probably would need to be terraced, and, therefore, irrigation at higher elevation may or may not be economically feasible. Only investigation of this alternative proposal can determine its feasibility. The proposal is worthy of serious consideration and investigation by the Government.

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[1] It can be seen that the estimated value of olives (LL2 million) produced on the 2,000 hectares slated to be taken out of production exceed the annual average value of olive oil exports (LL1.7 million) for the years, 1952-56.

Significance of electricity

The total production of electricity in Lebanon for the year 1956 was 250 million kwhs.[2] It is estimated that upon the completion of Phase A of the Litani project another 425 million kwhs of generating capacity will be added,[3] increasing the potential annual supply of electricity by 170 per cent. An increase of this magnitude raises the question: does a demand for this supply exist or is it likely to result in excess capacity? Two potential markets now exist, one for consumption and the other for use in production.

Between 1940 and 1950 electrical energy consumption in Lebanon increased at an annual rate of 15 per cent.[4] Between 1950 and 1955 the annual rate of increase was 13.6 per cent;[1] however, the increase in consumption could have been much higher had the power supply been available to meet the demand. This fact is evidenced by the restrictive use of electricity, frequent power interruptions, and the extensive use of kerosene for cooking and lighting.

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[1] See Figure 3, p. 89, for the location of the Beirut-Saida Irrigation Unit.

[2] Bulletin Statistique Trimestriel, IX (Troisieme Trimestre, 1958), 56.

[3] Lahhoud, op. cit., p. 117.

[4] FOA Report, Appendix to Section VI, Power, p. VI-A-22.

Available statistics of the consumption of electricity in households indicate that the degree of utilization of appliances in the city of Beirut in 1951 was as follows: (in percent of households) lighting, 75; radios, 30; refrigerators, 10; irons, 10; washing machines, 10; electric ranges, 1; electric water heaters, 3; space heaters, 1; hot plates, 3.[2] Even if allowance is made for the increased electrical production since 1951, there seems to be room for a substantial increase in the degree of utilization of small electrical appliances.

When cheap electricity is provided, it is expected that many users of kerosene will shift to electricity. In addition, there will probably be other substantial increases in the domestic use of electricity. Market studies for electricity made by the Point Four Mission indicate that the potential demand for electricity will reach 1,055 million kwhs by 1975.[3] "There are indications that incomes are sufficient to support a substantial increase in the ownership and use of electrical appliances in homes and commercial establishments."[4]

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[1] Bulletin Statistique Trimestriel, VII (Premier Trimestre, 1956), 39.

[2] FOA Report, Appendix to Section VI, Power, p. VI-A-22.

[3] FOA Report, Vol. I., p. VIII-1.

[4] U.S. Department of the Interior, Bureau of Reclamation, Litani River Project: Lebanon, Reconnaissance Report (Beirut: June, 1951), p. 40.

According to the FOA Report, the average price of electricity for residential and commercial uses in 1954 amounted to 19 piasters per kwh. It is estimated that the average price for all electricity produced by the Litani Project will be 5 piasters per kwh.[1] This represents a reduction of 74 per cent in the price of electricity--a spectacular reduction indeed that should benefit industry. This provision of power for industrial use is perhaps the most important economic aspect of the Litani Project. As the supply of electricity becomes plentiful and cheap, "it is assumed that industries producing their own energy at present would want to shift to a central source."[2]

There are two reasons why it seems logical to assume that industrial and commercial users will no longer find it desirable to resort to installing their own generating equipment even though little is known of the actual costs of such installation. First, it will be possible to reduce the amount of capital needed to start a business if it is not necessary to provide one's own electric power. As already established industries switch to power produced by the Litani project, it may be possible for these firms to dispose of their generating equipment and use the proceeds in the expansion or modernization of their businesses. Second, the operating costs of small, individual units are probably higher than the costs of power from the Litani project if the initial costs of the generating equipment is included.

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[1] FOA Report, Vol. I, p. VI-17, 45.

[2] FOA Report, Vol. I, p. VI-21. In 1955 industries supplied well over half of their consumption of electricity. Republic of Lebanon, 1955 Industrial Census (Beirut: 1957), p. 67.

The reduction in power costs as a result of the Litani Project will no doubt play an important role in enabling already established industries to compete more successfully with foreign producers. It is also likely that the availability of cheap power will facilitate the setting up of new industries such as the production of fertilizers and other chemicals. Imports of fertilizers to Lebanon for the years 1951-1956 averaged 36,000 tons.[1] With the availability of cheap electricity it is possible to produce ammonium nitrate fertilizer by nitrogen fixation, or to produce important chemicals such as sodium hydroxide from electrolosis of salt water.[2] Possibilities exist also for the manufacture of phosphate fertilizer from Jordanian Phosphate rock, using electric furnaces. This Jordanian product is being exploited at present by a joint Arab Company in which Lebanon has interests.

In addition to the direct benefits to be derived from electrical power in the form of increased consumption of electricity by households and the lower costs of power for industry, there are other benefits to be obtained. These would include the higher levels of income and the shift of workers from agricultural occupations to industry as industrialization proceeds. It would also facilitate the development of water supplies for villages and rural areas. These gains cannot be stated in terms of money, but in terms of health and social improvement they are substantial.

Phase A of the project is estimated to produce an annual net revenue of LL11.4 million from the sale of electricity.[1] In addition it will provide an estimated net revenue of LL.6 million from the sale of water for irrigation.[2] The total net return to the Government, therefore, is LL12 million. Since the project will cost an estimated LL146 million, the rate of net return to the Government will be 8 per cent.

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[1] United Nations, Yearbook of International Trade Statistics, Vol. I, 1956 (New York: 1957), p. 359.

[2] Sodium hydroxide is an alkali used in industry such as soap making.

While this return may appear low, the project cannot be judged on this basis alone. In addition to the benefits to agriculture and industry are the indirect gains indicated above. Finally, the desirability of Phase A is, to some extent, dependent on the advantages to be derived from the completion of Phase B.

The annual benefits from the total plan of development are estimated at about LL12 million increase in gross crop value and a net average return of LL18.5 million from power revenue.[3] It will increase the area under irrigation by 21,500 hectares--an increase of about 40 per cent over the available irrigated land in 1954. It will also increase power supply by 626 million kwh--an increase of 250 per cent over the 1956 supply. It can be stated that the Litani Project in its entirety is the only single development project that would materially relieve the present population pressure in Lebanon.

Features and Significance of Extraordinary and Continuing Projects

As indicated above, the impact of Phase A of the Litani project on the Lebanese economy cannot be considered independently of the other government-sponsored development projects. These projects fall into two categories: extraordinary projects and continuing projects. A list of extraordinary projects is presented in Table 31, Chapter VI. Included are: thermal power and rural electrifications; roads and ports; broadcasting; and village water supply. Continuing projects include roads, schools, hospitals, and public buildings. This second group of projects will be considered further in Chapter VI.

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[1] Lahhoud, op. cit., p. 117.

[2] Ibid., p. 117.

[3] U.S. Foreign Operations Mission to Lebanon, Litani River Basin Development, (Beirut: 1954, mimeographed).

Extraordinary projects are those requiring large initial capital outlay at any one time and are oriented entirely toward long-run capital development. They can be referred to as special projects in the sense that they are not likely to recur as often as continuing projects. On the other hand, continuing projects, although they include some projects (roads) which are similar in purpose to extraordinary projects, include for the most part projects of a distinctly social nature which differ from extraordinary projects in that they are expected to yield no direct revenue; furthermore, the need for the services they render is perpetually recurring.

A brief consideration of the relationship of the extraordinary and continuing projects listed above to the objectives of the total development program in Lebanon will make clear their social and economic significance. Briefly, the objectives of the total development program are to provide "social overhead capital" and consequently to raise the standard of living of the people.

The proposed thermal power plant will have an installed capacity of 20,000 kw and will produce about 80 million kwh annually.[1]

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[1] Banque Libanaise pour le Commerce, Economic Bulletin, No. 33 (Beirut: January-February,1957), p. 3.

The electricity output of this thermal plant represents an increase of 32 per cent over the 1956 electricity output in Lebanon. If we consider the joint contribution of both the hydro (Phase A of the Litani) and thermal power, we find that total supply of electricity will increase by over 200 per cent of its 1956 level.[1] The tharmal power will be coordinated with the hydro-power from the Litani in order to make full utilization of such hydro facilities. In view of the unavailability of power at the construction sites of Phase A of the Litani, the completion of this facility becomes particularly important to the construction of Phase A of tha Litani.

Provision of electricity to over five thousand villages in Lebanon through the rural electrification project would be a marked stimulant to handicrafts at which Lebanese excel and would raise the living standards of the rural people.

Improvements of both ground and air transport systems and facilities are particularly important in view of the position that Lebanon occupies as a tourist, trade, and transit center for the Middle East. Air transport is one of the more effective means of increasing the economic advantage of a nation. A facility of the kind proposed for the International Airport of Beirut (additional runways and equipment) is required to handle adequately the growth of air transport and to meet the operational demands of jet aircraft. Transportation systems play an important role in the development of any country. The economic life of a country depends upon the movements of goods and people. The development of road transport in Lebanon is particularly important because of the complete absence of navigable streams and the inadequacy of the rail system. Lebanon is a mountainous country unfit for rail transport except along the coast. It is imperative that a good road system be built. Although the roads of Lebanon compare favorably with those of other countries in the Middle East, they are still woefully inadequate. Though the country is small, there are many portions which are for all practical purposes in isolation. These isolated parts need to be brought into closer contact with the rest of the country; and with their own consequent development they would enlarge the market for the industries which now have excess capacity.

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[1] The output of electricity amounted to 250 million kwhs in 1956, whereas the joint output of electricity from hydro and thermal power plants considered in this study is expected to be around 500 million kwhs. Supra, p. 101.

Aside from the provision of a good radio network heard in Lebanon and abroad, a powerful radio station seems essential in view of the necessity of maintaining and strengthening the cultural and economic interests of emigrant Lebanese in their native land. It is important that these emigrants continue to contribute substantial amounts of money and capital goods to bolster investment and income in Lebanon. In view of the needs of Lebanon to obtain funds to finance the development program and the anticipated industrial expansion, this source of capital needs not only to be maintained but to be expanded.

From a humanitarian and public health point of view alone, the village water supply projects are urgently needed. They will improve the living and health standards of the people in the rural areas of Lebanon by providing an adequate potable water supply to areas which now obtain water from inadequate and often contaminated sources usually several kilometers from the village. Furthermore, the improvement in health and productivity of the villagers will be appreciably increased. Less hampered by disease, they will be able to expend more energy on production, thus improving the economic conditions of the country. These water supply projects will be accomplished by constructing a number of water systems for individual villages or groups of villages. This investment in the formation of human capital may pay rich economic and social dividends.

Large scale improvements in health and educational facilities expand productive capacity by increasing efficiency and strength of the worker. This improvement as truly represents an increase in the resources at the disposal of the economy as do investments in the physical capacity of production. The increase in skills, combined with investment in highways, power plants, irrigation, communications, etc., provides the necessary economic climate needed to set the pace for more vigorous private investment.

There is no question of the desirability of the total development program which has been proposed for Lebanon. There may be some question as to feasibility and perhaps the desirability of trying to proceed with all phases of the program simultaneously. This feasibility can only be ascertained by comparing the material requirements of the total development program with reference to Lebanon's ability to supply these or with reference to Lebanon's capacity to obtain the necessary materials from foreign sources.

CHAPTER V

PHYSICAL REQUIREMENTS AND AVAILABILITY OF MATERIALS

The principal features and the economic significance of Phase A of the Litani Project were explained in the preceding chapter. In that chapter, reference also was made to the significance of extraordinary and continuing projects. It is necessary now to consider the availability of manpower and materials for implementing the projects.

Local Construction Practices

Construction designs appropriate to Lebanon have been developed. These provide for the extensive use of masonry, labor, and concrete. The extensive use of hand labor and local construction materials is vividly demonstrated in Figures 4, 5, 6, and 7.[1] These figures portray irrigation works recently completed in Lebanon.

There is an abundance of relatively cheap labor, and therefore designs were adopted to utilize the maximum of hand labor and the minimum of imported materials and equipment. With few exceptions (for example, two small diversion dams in the Bekaa Irrigation Unit which will require earthmoving and compacting equipment) no mechanized work will be necessary on the irrigation systems. Considerable amounts of stone masonry have been planned. Lebanese stone masons excel in this type of work. Furthermore, the cost of the masonry is much cheaper then reinforced concrete.[1] The irrigation systems and nearly all the minor structures, including dry tunnels and power canals of the Litani Project,[2] can be constructed with only a moderate amount of mechanization and by local contractors.

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[1] These figures were made available to the writer through the courtesy of United States Operations Mission in Lebanon.

As is the usual practice in Lebanon, all principal and secondary irrigations canals will be lined with plain concrete.[3] Two important factors make such lining necessary. The first is the fact that canals upon completion will become quite widely used by villagers and their animals going to and from the fields. Although humans and animals alike should be prohibited from entering the canals except at certain predetermined places, the canal structures must withstand unauthorized crossing. The second factor which necessitates the concrete lining of the canals is the fractured rock and permeable soils which, but for the lining, would result in excessive losses of water and high maintenance costs.

Physical Requirements

Domestic

Assessment of the requirements for projects other than the Litani were made by Lebanese engineers. The cost estimates used in this study were taken from official Lebanese documents. Unfortunately, these estimates were in money costs only and the actual construction items on which they were based are not available. However, estimates are available of items to be provided from domestic sources which are

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[1] FOA Report, Vol. II, p. XVIII-17.

[2] Ibid., Vol. I, p. VIII-9.

[3] See Figures 8 and 9 for view of a typical irrigation canal and a lateral.

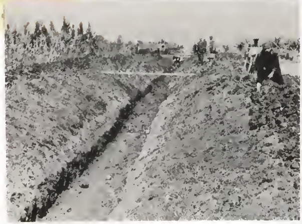

Fig. 4.- Initial canal excavation showing rough canal sections.

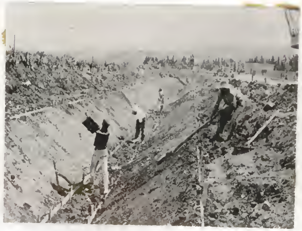

Fig. 5.- Method of compacting earth foundation for concrete lining.

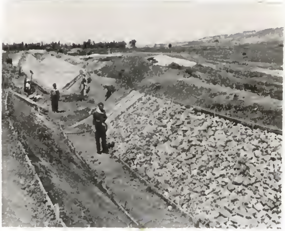

Fig. 6.- Hand-placed stone riprap to bring foundation to correct grade.

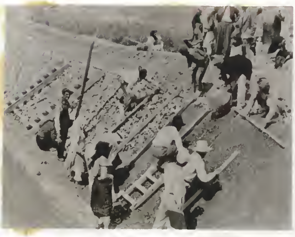

Fig. 7.- Lining canal with concrete. All work by hand labor except for mechanical concrete mixers.

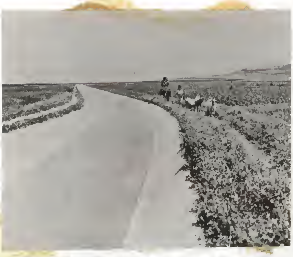

Fig. 8.- A concrete-lined canal carrying water to the fields.

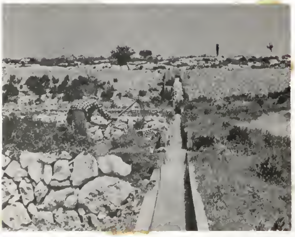

Fig. 9.- Concrete-lined secondary canal carrying water to farm land.

required for construction of Phase A of the Litani project. (See Table 27.) Since estimates of money costs are available for the other projects, as well as for Phase A,[1] it is possible to estimate the total demand for items to be supplied by domestic sources since the requirements of the various projects are sufficiently similar in nature.

Total money cost of Phase A of the Litani is estimated at LL146 million, of which LL58 million are to be expended on local supplies and LL88 million on foreign supplies. The estimated costs of other extraordinary and continuing projects is LL248 million, LL129 million to be expended on local supplies and LL119 million on foreign supplies. On the basis of these cost estimates, LL187 million will be expended locally for all projects and LL208 million externally; the total development program, therefore, will place demands on local resources approximately three times as great as the Litani Project alone.

Deriving the need for local items, other than unskilled labor, by the method outlined above, it is estimated that the following amounts will be required for the total development program.

Concrete aggregates	1,339,841 cubic meters
Cement	300,000 metric tons
Masonry	240,000 cubic meters
Masonry paving	18,600 square meters
Precast concrete pipe	21,000 meters
Floor slags	19,200 square meters
Asphalt	2,400 metric tons

Reference to Table 27 will reveal that many of the items to be supplied by domestic sources are produced largely by unskilled labor. This is true of excavation, earthfill, rockfill, hand-placed stones, rockfine, gravel blanket, and trimming earth foundation for canal lining.

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[1] *Infra*, Table 33, p. 132.

TABLE 27

PRINCIPAL CLASSES OF MATERIALS OR WORK REQUIRED FOR LOCAL CONSTRUCTION IN PHASE A OF THE LITANI RIVER PROJECT[a]

(In cubic meters unless specified)

Item	Amount
1. Excavation	2,441,358
2. Earthfill	802,060
3. Rockfill	648,700
4. Hand-placed stones	2,240
5. Rockfine	359,800
6. Gravel blanket	48,000
7. Trimming earth foundation for canal lining	1,032,200 Square Meters
8. Concrete aggregates	379,947
9. Cement	100,000 Metric Tons
10. Masonry	80,000
11. Masonry paving	6,200 Square Meters
12. Precast concrete pipes	7,000 Meters
13. Floor slags	6,400 Square Meters
14. Asphalt	800 Metric Tons

Source: FOA Report, Vols. II and III, Tables XIX-4,5,7; XXVI-1; XXXVII-5,8,16,22; Republic of Lebanon, Ministry of Public Works, Beirut; and Office National du Litani, Beirut.

[a] It should be noted that the above estimates on the Litani Project include the requirements for about 160 houses for engineers, technicians, inspectors, and workers, and for about 30 kilometers of access roads. Although the Point Four Mission Report included cost estimates for housing and access roads, no quantity requirements were listed for these. The estimated quantities required per dwelling and per kilometer of road of the type constructed in Lebanon were obtained from the Ministry of Public Works in Lebanon.[1] Since the Point Four Report recommends that "...the design and construction of all housing and access roads should be delegated to Lebanese engineers and contractors who are familiar with local construction codes, methods and materials,"[2] the estimates of quantities required for housing and access roads may be considered reliable. The quantities required for the drainage system on both of the irrigation units are not included in Table 27. Preparations of the complete plans for the drainage system is not presented in the FOA Report. On both of the irrigation units, however, no unusual problems of drainage are anticipated.[3] Some drains will be necessary to carry away excess surface water in the Bekaa Gravity Unit, but the extent and location of these have not yet been determined. No deep sub-surface drains will be required.[4] On the Beirut Saida Unit some drainage treatment may be necessary in a few localized areas. But at most a few shallow drains should suffice for any of the places that may need treatment. These shallow drains will consist of a few hand-dug ditches.[5]

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[1] Letter from Hani Shamsedin, Engineer, Ministry of Public Works, Beirut, Lebanon, dated June 10, 1957.

[2] FOA Report, Vol. II, p. XVI-12. [3] Ibid. [4] Ibid., p. XVII-28.

[5] Ibid., p. XXXIV-8.

Foreign

The survey of resources of Lebanon undertaken in Chapter II revealed the dependence of Lebanon on foreign sources for many of the materials needed for development. It is necessary to import all wood and metal products as well as all heavy construction equipment such as bulldozers, trucks, earthmoving equipment, crushing equipment, and all electrical and hydraulic equipment.[1] Some materials needed for the projects no doubt can be fabricated or assembled in Lebanon, but the raw materials for these or the semi-finished products must be imported.

Availability of Physical Requirements

Domestic

The FOA Report expresses no doubt at all that the local construction materials for the first phase of the Litani Project are readily available in Lebanon. For example, concerning the availability of labor the FOA Report states that

> in addition to a plentiful supply of common labor, there is an adequate supply of skilled labor such as drivers, mechanics, stone masons, carpenters, iron workers, plasterers, and painters.[2]

This general optimism would be warranted only if the Litani Project were the sole major commitment of the economy. The extraordinary and continuing projects, however, have been instigated and have created new demands for local resources since the completion of the FOA Report. It is quite obvious that these new demands must also be met. A failure to take account of resource availability could lead to inflation and eventually to a forced curtailment of development projects.

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[1] FOA Report, Vol. I, p. VIII-10.

[2] FOA Report, op. cit., p. VIII-9.

Insofar as the other projects share with Phase A of the Litani a need for common labor there seems to be no problem. The labor force could be supplemented in off-season by farm workers as well as by the Palestinian refugees.[1] It is true also that since concrete aggregates are obtainable near all construction sites, this item constitutes no obstacle. Furthermore, stones which are available in large quantities can be obtained by quarry operations from limestone formation.

On the other hand, the cement supply and the skilled labor supply present serious problems of procurement. Total cement requirements will be at least 300,000 tons, including 100,000 tons for Phase A of the Litani Project. If this demand were spread equally over the seven year construction period, it would be an annual increase of about 43,000 tons. But the demand is not spread equally over the construction program, being concentrated heaviest in the second, third, and fourth years. These are likely to be the years in which the demand for cement is largest and the demand may exceed the capacity of the industry to supply the requirements of the development projects.

Recent experiences of the reconstruction program in earthquake-damaged areas justify conclusions with respect to the inadequacy of the cement supply. When the National Reconstruction Office began operation, cement shortages developed and it was necessary to import cement from Syria and Rumania. Imports during the first year of the reconstruction program amounted to 55,000 tons.[2] Although production capacity was increased 100,000 tons during 1957,[1] this is not sufficient to meet total demands. If private demands and the demand for earthquade reconstruction continues at existing levels, only 45,000 tons of capacity is available to supply the needs of the development program which averages 43,000 tons annually with larger demands during the first four construction years. Not only will the demand exceed the domestic supply, but it will also turn a normal export industry[2] into an import industry with consequent shifts in supply of and demand for foreign exchange.

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[1] See Tables 2 and 3, pp. 13, 15.

[2] Republic of Lebanon, National Reconstruction Office, First Annual Report (Beirut: August, 1957), p. 90 Arabic.

The positive statement of the FOA Report about the availability of skilled labor should be qualified even if only Phase A were under consideration. Aside from the problem of scarcities of certain types of skilled labor,[3] the recent reconstruction program revealed that at least some labor, particularly masons, is immobile.[4] Not all masons, therefore, can be considered as readily available for work. This is a very important problem to be dealt with, particularly when considerable masonry has been planned for the various projects.

No electric power for construction is available at any of the construction sites of Phase A of the Litani. Because power must be supplied from the Beirut system, the construction of the transmission lines of Phase A prior to the commencement of work on any of the units of the Litani Project is necessary. In view of the inadequacy of the supply of electricity in the Beirut system, construction of the thermal power plant, which will be located in the Beirut system and is a part of the other planned projects, should be speeded up. Portable generators are an alternative to the thermal plant; however, they are temporary and less economical than thermal power.

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[1] U.S. Department of Commerce, Economic Development in Lebanon, 1957 (Washington: 1958), p. 2.

[2] The average value of cement exports (1952-1956) amounted to LL1.97 million. See Table 18, p. 66.

[3] A.E. Mills, "Economic Change in Lebanon," Middle East Economic Papers, 1956 (Beirut: American University of Beirut, 1956), p. 88.

[4] National Reconstruction Office, op. cit., p. 73.

Foreign

The procurement of foreign equipment is essentially a problem of securing foreign exchange. The possible sources from which the necessary foreign exchange may be obtained will be discussed in Chapter IX.

CHAPTER VI

FINANCIAL REQUIREMENTS OF THE DEVELOPMENT PROGRAM

In this chapter, an estimate of the total financial requirements of the Lebanese development program is presented; the foreign and domestic requirements of the Litani, the other extraordinary projects, and other public works. These will be analysed in order to estimate the total and annual demands which will be placed on the economy.

The Litani Project

Estimates of financial requirements, both domestic and foreign, of Phase A of the Litani Project are given in Table 28. These estimates were based on the 1953 price levels in Lebanon, the United States, and some European countries. They include allowances for contingencies, studies, supervision, and administrative expenses totalling 33 per cent of estimated construction cost.[1] It may be well to question these estimates before accepting them.

Wholesale price indexes for the United States, West Germany, the United Kingdom, and France are shown in Table 29. These countries are presumed to be the most likely sources of capital equipment. Since the equipment to be purchased for the Litani project is mostly in the nature of finished goods the component of the wholesale price index which most accurately reflects changes in cost for these projects is the index for

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[1] FOA Report, Vols. II and III, Estimate Sheets.

TABLE 28

DOMESTIC AND FOREIGN FINANCIAL REQUIREMENTS, BY PROJECT FEATURE, FOR PHASE A OF THE LITANI RIVER PROJECT

(In Lebanese pounds)[a]

Project Feature	Domestic Funds	Foreign Funds	Total Funds
Karoun Dam and Reservoir	11,314,000	10,586,000	21,900,000
Bieri Tunnel and Surge Tank	21,830,000	36,240,750	58,070,750
Bieri Power Plant and Penstock	2,686,000	12,786,150	15,472,150
Joun Diversion Dam, Tunnel, and Surge Tank	6,486,000	7,131,150	13,617,150
Joun Power Plant and Penstock	1,526,600	7,267,065	8,793,665
Substations	2,126,000	10,370,000	12,496,000
Transmission Lines 1. 100 Kilometers 69-kv. 2. 40 Kilometers 33-kv.	1,176,000	2,744,000	3,920,000
Bekaa Gravity Irrigation Unit	4,980,000	520,000	5,500,000
Beirut-Saida Irrigation Unit	5,880,000	620,000	6,500,000
TOTAL	58,004,600	88,265,115	146,269,715

[a] Exchange rate is LL3.25 = 1$U.S.

Source: FOA Report, Vol. I, pp. IX-3-4; Vols. II and III, Estimate Tables, XIX-4,5,7; XXVI-1; XXXVII-5,8,16,22; and Republique Libanaise, Office National du Litani, Previsions d'Advancement des Travaux, Charte Organique (Beirut: 1955).

TABLE 29

LEVEL OF TOTAL AND SELECTED COMPONENTS OF THE INDEX OF WHOLESALE PRICES IN SELECTED COUNTRIES, 1957

(1953 = 100)

Country	Raw Materials	Finished Goods	General	Construction Materials
Lebanon	87	97	100	116
U. S. A.	98	107	107	---
West Germany	105	106	105	---
Britain	106	112	107	---
France	107	106	105	---

Source: United Nations, Monthly Bulletin of Statistics (New York: April, 1958), pp. 127, 129, 132-133.

finished goods prices. These increased from 6 per cent in West Germany and France to 12 per cent in Great Britain. If we assume an average increase of about 8 per cent, this would mean that an additional LL7 million (about $2.2 million) in hard currency is required to finance Phase A of the Litani Project.

Wholesale prices in Lebanon have increased only slightly since 1953. Since mostly construction materials will be required to be furnished by local sources, an index of the price of construction materials is more significant than the general index. These materials increased in price from 1953 to 1957 by 16 per cent, requiring an additional LL9 million to finance domestic requirements. The increase in total cost as a result of price rises is therefore LL16 million or about 10 per cent above the original estimate.

The original estimates for Phase A of the Litani project included a 33 per cent allowance for contingencies, studies and supervision. It would appear, therefore, that the original estimates are still realistic in spite of the price increases. In the opinion of the Lebanese engineers, the 33 per cent contingency allowance is too high and that accordingly ". . . the estimates of U. S. technicians took into account the most unfavorable conditions."[1] If we consider as valid the opinions of the Lebanese engineers who are familiar with the local construction practices in Lebanon, then the original estimate of LL146 million is conservative.[2]

Annual domestic and foreign financial requirements for Phase A of the Litani project are presented in Table 30. The average domestic financial requirements per construction year is about LL9.6 million, although the requirements for the third year are substantially in excess of this amount. The average foreign financial requirements are the equivalent of about LL14.7 million or about $4.5 million per construction year. The foreign financial requirements are also concentrated in the third construction year.

Other Extraordinary Projects

The total cost of the other extraordinary projects is estimated at LL168 million, or an average annual outlay of LL24 million. These

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[1] Edward Manassah, Latest Plans for Utilization and Development of the Litani Basin (Beirut: 1955), p. 17. Mimeographed.

[2] In the calculations of foreign financial requirements the conversion rate of LL3.25 equals $1 U.S. was used. This rate is well above that which is prevailing in the market. Present rate (1957) is LL3.18 equals $1 U.S.

TABLE 30

DOMESTIC AND FOREIGN FINANCIAL REQUIREMENTS, BY CONSTRUCTION YEAR, FOR PHASE A OF LITANI RIVER PROJECT

(In Lebanese pounds)[a]

Construction Year	Domestic Funds	Foreign Funds
1	9,247,299	14,406,554
2	10,423,199	14,530,554
3	14,321,199	17,177,054
4	9,459,616	16,466,366
5	9,459,616	16,466,366
6	5,093,666	9,218,216
Total	58,004,595	88,265,110

[a] Exchange rate is LL3.25 = 1$U.S.

Source: Based on Table 28, p. 121; and Republique Libanaise, Office National du Litani, Previsions d'Advancement des Travaux, Charte Organique (Beirut: 1955).

estimates also include libral allowances (18 per cent of construction cost) for contingencies and hence may be considered conservative.[1] These estimates were made in 1956 and 1957 with the exception of Project A (Village Water Supply, Table 31), the estimates for which were made in 1953. Since prices of construction materials increased only slightly from 1956 to 1957 (less than 4/10 of 1 per cent) the

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[1] Republic of Lebanon, Official Gazette, No. 37 (Beirut: September 12, 1956), p. 818. Arabic.

TABLE 31

GOVERNMENT COMMITMENTS FOR EXTRAORDINARY DEVELOPMENT PROJECTS BY CONSTRUCTION YEAR

(Thousands of LL)

Project	Construction Year						
	1	2	3	4	5	6	7
A. Village Water Supply[a] (Law of 16.3.53)	8,500	8,500	-	-	-	-	-
B. Village Water Supply (Law of 7.9.56)	6,200	6,200	6,200	6,200	6,200	6,200	6,200
C. Rural Electrification (Law of 24.8.56)	-	5,000	11,000	11,000	5,000	5,000	5,000
D. Beirut-Damascus Road[a] (Law of 24.8.56)	-	4,000	5,000	6,000	5,700	-	-
E. Port of Tripoli (Law of 5.8.56)	2,000	2,000	2,000	2,000	-	-	-
F. International Airport[a]	-	3,700	2,900	-	-	-	-
G. Housing[b]	-	6,000	-	-	-	-	-
H. Thermal Power, Zouk Mikael Plant	-	3,500	3,500	3,500	3,500	-	-
I. Broadcasting Network	-	-	4,800	4,800	-	-	-
J. Beirut Municipality	272	273	409	-	-	-	-
TOTAL	16,972	39,173	35,809	33,500	20,400	11,200	11,200

[a] Includes U.S. Foreign Operations Administration contributions. See p. 126.

[b] Excludes housing reconstruction as a result of the earthquakes of March, 1956.

Source: Republic of Lebanon, *Parliamentary Reports, 1954* (Beirut: 1954), p. 115, Arabic; Republic of Lebanon, *Official Gazette*, No. 12 (March 25, 1953), p. 580; No. 37 (September 12, 1956), p. 818; No. 35 (August 29, 1956), pp. 755-57. Beirut. Arabic; U.S. Department of Commerce, *Foreign Commerce Weekly* (Washington: February 18, 1957), p. 5; *Middle East Economist*, XI (March, 1957), p. 43; XI (July, 1957), p. 107.

the conclusion that allowances for contingencies are ample, is, therefore, valid.[1] For Project A, however, the cost of local construction materials increased by 16 per cent between 1953 and 1957. This would mean that an additional LL1.8 million in local funds will be needed to compensate for the increase in prices.[2] It should also be noted that the requirements in the second, third and fourth construction years are substantially in excess of those for the other years.

The Government has already allocated funds to cover the costs of those projects. These funds are estimated to be sufficient to cover both domestic and foreign financial requirements, although no data are available as to amounts of each. Estimates of the proportion of domestic and foreign funds needed are included in Tables 31 and 32.

It must be pointed out, however, that appropriations for items A, D, and F (Table 31) include funds to be contributed by United States economic assistance, according to agreements.[3]

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[1] See Table 41, p. 159.

[2] Since the United States Foreign Operations Mission to Lebanon has contributed the foreign currency requirements of Project A (one-third of total construction cost) which is included in Table 31, there remains LL11.3 million in local construction cost. With a price increase of 16 per cent in local construction materials between 1953 and 1957, this means that an additional LL1.8 million would be required for Project A.

[3] U. S. contributions will amount to $1.4 million; $3.2 million; and $1.4 million for Village Water Supply, Beirut-Damascus Road, and International Airport, respectively. (Total contributions for these projects, viz., $6 million is equivalent to LL19.2 million). U. S. Operations Mission to Lebanon, _1955 Progress Report_ (Beirut: Catholic Press, 1956), p. 89; _1957 Progress Report_ (Beirut: Catholic Press, 1958), p. 29; and _Middle East Economic Digest_ (London), September 27, 1957, p. 9.

Continuing Public Works

In addition to the Litani project, and the other extraordinary public works, Lebanon has certain other construction projects under way which must be considered in connection with the impact of the development program on the economy. These projects include road construction, schools, hospitals, public buildings, and the International Airport of Beirut. For the years 1943-1955, Parliament appropriated LL141.6 million for these projects. These funds were withdrawn from the Reserve Fund as indicated in Table 48.[1]

In order to get an approximation of the magnitude of these expenditures in the future, an effort must now be made to enumerate the projects which are likely to be continued and those that are not. Of the total of LL141.6 million should be subtracted LL48 million for the International Airport which was a special project now completed. Such expenditure will not be recurring. It is not expected, however, that the demand for schools, hospitals, roads, nor irrigation will slow down as a result of the expenditures on the Litani and other new developmental projects such as water supply, rural electrification, etc. In fact, these expenditures on continuing capital improvements may have to be augmented in the future in view of additional responsibilities that are being shouldered by the Government since independence. For example, there will probably be more need for schools to cope with the additional requirements of a growing population.Witness the increase in government schools from 248 in 1943 to 1,107 in 1956.[2] It is reported that the Government is preparing legislation for compulsory education which will require still more schools and more teachers. There will also be a continued demand for health projects.

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[1] Chap. VII, p. 174.

[2] A. E. Mills, "The Man in the Middle," Middle East Forum, XXXII (Beirut: American University of Beirut, June,1957), 13.

If the above contention is correct, there is no question of the probability of the continuation of these projects. With these considerations in mind, it is possible now to estimate the minimum outlay necessery to continue these projects. On the basis of 1943-1956 data presented in Chapter VII, Table 48, p. 174, we may project expenditures on all continuing capital improvements at the annual rate of LL7 million. If, however, we take as our standard the period since 1951, the date of completion of the International Airport, we find that the total expenditures have been LL57.5 million from 1952 to 1956 inclusive, or an average of roughly LL11.5 million per year. It is believed that these recent expenditures convey a more accurate estimate of expenditures that are likely to continue.

In addition to these projects, the Government has assumed responsibility for the reconstruction program resulting from the 1956 earthquake. These expenses will add to the economic and financiel burden of the economy.

Between April 1956 and March 1957 the National Reconstruction Office spent LL28 million; LL24 million of this came from Treasury loans and the remainder from foreign aid, including a $2 million grant by the United States.[1] To accomplish its remaining task by the end of 1960 the NRO estimates its financiel needs at LL74 million or an average of LL25 million a year (1958-1960).[1] These LL74 million will be derived in part from additional taxes imposed for this purpose (mostly admissions and gasoline taxes) when the NRO was established in April 1956 and from additional Treasury loans.

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[1] Republic of Lebanon, National Reconstruction Office, First Annual Report (Beirut: August, 1957), p. 164. Arabic.

Although a further treatment of these housing requirements falls outside the scope of this study, they nevertheless form an additional claim on available resources. The size and effects of these expenditures cannot be ignored and will be taken into account when we consider the developmental effects of projects in a later chapter.

Foreign Exchange Requirements of Extraordinary and Continuing Projects

Although no data are available on the foreign exchange requirements of projects other than the Litani, an estimate can be made of these and their magnitude approximated. This estimate is presented in Table 32.

Of the total expenditure for the village water supply program under item A in Table 31, roughly one-third was contributed in foreign currencies by American economic assistance. For the second village water supply program under item B in Table 31, the same ratio of foreign currency requirements for the project can be used, namely,roughly one-third. On the basis of Point Four cost estimates for power plants and transmission lines in the Litani Project, it is possible to estimate foreign funds required by rural electrification and thermal power projects at roughly three-fourths and four-fifths respectively.[2]

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[1] *Ibid.*, p. 165.

[2] See Table 30, p. 124.

TABLE 32

FOREIGN EXCHANGE REQUIREMENTS OF EXTRAORDINARY AND CONTINUING PROJECTS, BY CONSTRUCTION YEAR

(Thousands of LL)

Project	1	2	3	4	5	6	7
1. Village Water Supply[a]	4,296	4,296	2,046	2,046	2,046	2,046	2,046
2. Rural Electrification	---	3,750	8,250	8,250	3,750	3,750	3,750
3. Beirut-Damascus Road[a]	---	3,000	3,000	2,000	2,400	---	---
4. International Airport[a]	---	3,000	1,500	---	---	---	---
5. Port of Tripoli	1,000	1,000	1,000	1,000	---	---	---
6. Broadcasting Station	---	---	3,200	3,200	---	---	---
7. Thermal Power	---	2,800	2,800	2,800	2,800	---	---
8. Public Works in the City of Beirut	136	136	204	---	---	---	---
9. Other Continuing Projects	4,600	4,600	4,600	4,600	4,600	4,600	4,600
TOTAL	10,032	22,582	26,600	23,896	15,596	10,396	10,396

[a] Includes U.S. Operations Administration contributions.

Source: Estimates derived from data presented in Tables 30 and 31, pp. 124-125.

Since the immediate program for the development of the Port of Tripoli calls simply for the widening of the channel, which can be done with leased foreign equipment operated by Lebanese labor, not more than half the outlays need be in the form of foreign currencies. Although the buildings (studios and an auditorium) for the broadcasting station will be "labor-heavy," all the equipment will have to be imported. At least two-thirds of the total cost must be provided in foreign funds. For going projects consisting mainly of schools, roads, irrigation, public buildings, etc., roughly three-fifths of the total outlay can be contributed in local currencies, thus leaving two-fifths to be provided for by foreign funds; the nature of these projects requires extensive masonry, cement, and labor which are normally locally supplied.

On the basis of the above estimates, the additional foreign exchange requirements for extraordinary and continuing projects amount to LL100.6 million. To this amount must be added the foreign currency requirements of the Litani Project referred to above and the contributions of the United States for village water supply, Beirut Damascus Road, and International Airport. The United States aid for these latter projects amounted to $6 million or the equivalent of LL19.4 million. The total, therefore, is LL207.8 million or the equivalent of about $64 million.

Summary of Total Financial Requirements

A summary of financial requirements for the Lebanese development program is presented in Table 33. It will be noted that the total cost is estimated at LL395 million. Of this amount, LL187 million will be expended locally for labor and domestically produced materials, and LL207 million will be needed to finance foreign exchange requirements. The largest expenditures for domestic purchases will occur in the second

TABLE 33

ALLOCATION OF DEVELOPMENT COSTS BETWEEN LEBANESE AND FOREIGN SOURCES, BY TYPE OF PROJECT AND BY CONSTRUCTION YEAR

(Thousands of LL)

YEAR	(a)Litani Project			(b)Extraordinary Projects			(c)Continuing Public Works			Total Cost of All Projects		
	(1)TC	(2)LS	(3)FE	(1)TC	(2)LS	(3)FE	(1)TC	(2)LS	(3)FE	(1)TC	(2)LS	(3)FE
1	23,654	9,247	14,407	16,972	11,540	5,432	11,500	6,900	4,600	52,126	27,687	24,439
2	24,954	10,423	14,531	39,173	21,191	17,982	11,500	6,900	4,600	75,627	38,514	37,113
3	31,498	14,321	17,177	35,809	13,809	22,000	11,500	6,900	4,600	78,807	35,030	43,777
4	25,926	9,460	16,466	33,500	14,204	19,296	11,500	6,900	4,600	70,926	30,564	40,362
5	25,926	9,460	16,466	20,400	9,404	10,996	11,500	6,900	4,600	57,826	25,764	32,062
6	14,312	5,094	9,218	11,200	5,404	5,796	11,500	6,900	4,600	37,012	17,398	19,614
7	---	---	---	11,200	5,404	5,796	11,500	6,900	4,600	22,700	12,304	10,396
TOTAL	146,270	58,005	88,265	168,254	80,956	87,298	80,500	48,300	32,200	395,024	187,261	207,763
PERCENTAGE LOCAL SOURCES AND FOREIGN EXCHANGE OF TOTAL COST												
1	100	39.1	60.9	100	68.0	32.0	100	60.0	40.0	100	53.1	46.9
2	100	41.8	58.2	100	54.0	45.9	100	60.0	40.0	100	50.9	49.1
3	100	45.5	54.5	100	38.6	61.4	100	60.0	40.0	100	44.5	55.5
4	100	36.5	63.5	100	42.4	57.6	100	60.0	40.0	100	43.1	56.9
5	100	36.5	63.5	100	46.0	53.9	100	60.0	40.0	100	44.5	55.6
6	100	35.6	64.4	100	48.2	51.8	100	60.0	40.0	100	47.0	52.9
7	---	---	---	100	48.2	51.8	100	60.0	40.0	100	55.2	45.8
TOTAL	100	39.7	60.3	100	48.1	51.9	100	60.0	40.0	100	47.4	52.6

(1) TC (Total Cost)
(2) LS (Lebanese Sources)
(3) FE (Foreign Exchange

Source: Estimates derived from data presented in Tables 30, 31 and 32, pp. 124, 125, 130.

year of the development program. The peak foreign exchange requirements will be reached during the third year of the program and will be approximately as large during the fourth year of the program. An analysis of the sources of domestic funds and foreign exchange must consider not only the total requirements but also the time at which these requirements will be needed.

PART III. FINANCIAL SYSTEMS AND PLANS FOR FINANCING

CHAPTER VII

MONEY, PRICES, AND GOVERNMENT FINANCES

Before discussing the problems of financing the development program, a sketch of the monetary system and a brief analysis of money supply and price levels ought to be undertaken. The monetary system assumes special importance to this study because of its peculier organization and techniques. The relationship of this system to the verious aspects of the development program cannot be fully understood without a study of its evolution. Furthermore, a description of the types of government budgets in Lebanon and an analysis of the movements of government revenues and expenditures in recent years are necessary for a better formulation of the methods of local financing of economic development.

The Monetary and Banking System

History of the Lebanese monetary system[1]

The present monetary system of Lebanon was organized in 1920 by the French High Commissioner for Lebanon. A new monetary unit, the Lebanese pound, was created with a par value of 20 French francs. The right of note issue, with the notes covered in the main by French franc assets, was granted the newly-created Banque de Syrie (French). The

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[1] This historical survey draws heavily on Joseph Najjar's essay, "Le Probleme Monetaire au Liban," Les Conferences du Cenacle, IV (Beirut: May,1950), 108-134.

Banque de Syrie was later renamed Banque de Syrie et du Liban, referred to hereafter as the BSL.

In 1924 a monetary convention, to extend for a period of 15 years, was signed between the Government of Lebanon and the BSL under which the par value of the Lebanese pound remained at FF20 and the provisions for its cover remained substantially the same. Furthermore, the BSL was given the usual central banking functions of custodian of the funds of all the public bodies and of fiscal agent. The BSL was to continue its commercial banking operations. At its expiration in 1939, the 1924 convention was replaced by a new agreement concluded for 25 years to expire in 1964. The 1939 convention retained most of the essential features of the previous agreement.

From 1920 onward, the Lebanese pound followed the fluctuations of the French franc. At the outbreak of the Second World War a system of exchange control was instituted charging the BSL with the operation of a newly created "Office des Changes." The Office was charged with the official purchase and sale of foreign currencies. In November, 1941, Lebanon was occupied by the Allies and the Lebanese pound was linked to the pound Sterling. The new parity was fixed at LL8.83/1£ Sterling, which left the existing franc quotation unchanged at FF20/1LL. In 1944 a monetary agreement (Catroux Accord) was signed between the Government of Lebanon and the French National Liberation Committee whereby the latter pledged to revalue the franc assets of the note cover and of the Exchange Office in case of any new devaluation of the French franc in relation to Sterling. From the end of 1941 to 1946 the Lebanese pound was freely convertible into Sterling. Thus on the basis of its link with Sterling, the Lebanese pound did not follow the franc devaluations of 1944 and 1945 and the official franc quotation was increased to FF22.65/1LL and FF54.35/1LL as a result of these successive devaluations. In July, 1947, the official par value of the Lebanese pound was accepted by the International Monetary Fund at LL2.1914/1$U.S.

On January 10, 1946, the French Government notified the Government of Lebanon that it would be unable to continue the sterling guarantee for the foreign exchange assets (francs). It contended that the Catroux Accord meant to cover only one devaluation of the franc and did not extend to successive devaluations. The French Government offered to negotiate a new monetary agreement. The Lebanese Government refused to recognize the French point of view. A period of two years of disagreement followed during which the French-controlled Exchange Office continued to make available limited sterling balances at the guaranteed rate. Finally, in 1948, Lebanon signed a new agreement with France replacing the Catroux Accord. The 1948 Franco-Lebanese monetary agreement not only settled questions pertaining to the Lebanese franc balances but also dealt with such issues as those relating to capital transfers, French Government property located in Lebanon, and French concessionary companies operating in Lebanon.

The 1948 Franco-Lebanese monetary agreement[1]

The 1948 Franco-Lebanese Monetary Agreement was influential in determining the present monetary structure of Lebanon and has considerable bearing on the applications and limitations of monetary policy; its more important provisions are summarized here.

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[1] Republic of Lebanon, Ministry of Finance, *Collection of Laws of Lebanon, Monetary Laws*, "Monetary Agreement Between the Government of Lebanon and the Government of France" (Beirut: January 24, 1948), pp. 58-63. Arabic.

1. The Lebanese franc assets (FF 13 billion) were divided into two accounts:

Account No. 1 was the note issue cover and carried a ten-year sterling exchange guarantee. This account was credited with FF9 billion. These francs could be used (a) to compensate France for the value of French Government property in Lebanon estimated at LL20 million, to be paid in 5 annual installments of LL4 million starting June 30, 1949; and (b) to provide exchange resources, annual releases not to exceed one tenth of the original amount of Account No. 1 or FF900 million per year. The balance in Account No. 1 was FF900 million or the equivalent of LL5.5 million on June 25, 1959.[1]

Account No. 2 was the balance of the franc assets, viz., FF4 billion with no sterling exchange guarantee. Half of this account could be used to buy certain European currencies; the other half to purchase merchandise from the French Union. It is reported that Account No. 2 was depleted before the end of the first year of the agreement.[2]

2. The existing statutes concerning French concessionary companies operating in Lebanon were acknowledged by the Government of Lebanon; the Government of Lebanon could not introduce unilateral changes concerning these concessions. Changes could be made only by mutual agreement between the Government and the companies within the framework of existing legislation.

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[1] International Monetary Fund, International Financial News Survey, XII (August 7, 1959), 44.

[2] Najjar, op. cit., p. 122.

3. France was to pay the Government of Lebanon LL7 million for the deposite belonging to certain agencies (radio station, telephone and telegraph) purchased by Lebanon from France.

The 1948 Franco-Lebanese Monetary Agreement had several effects important to this study. The more significant of these were:

1. The role of the BSL was reaffirmed and its privileges continued.

2. It severed the pre-existing close monetary relations between France and Lebanon and paved the way for a reorganization of the Lebanese currency. The Monetary Law of May 1949 defined the Lebanese pound in terms of gold (1LL is equal to 405.512 milligrams of pure gold), and laid down specific rules for the cover of the note circulation.

3. It enabled Lebanon to secure LL120 million[1] in the form of gold through the liquidation of the sterling-guaranteed francs contained in Account No. 1. This has largely been accomplished since the signing of the agreement.[2]

4. It resulted in the issuance of LL58 million in Government obligations to reimburse the BSL for losses sustained when Lebanon chose not to devalue its currency in 1949. Devaluation of the franc and sterling resulted in depreciation in the sterling-guaranteed franc assets in the cover.[3]

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[1] Najjar, ibid., p. 122.

[2] See Table 23, p. 75.

Republic of Lebanon, Parliamentary Report, 1955 (Beirut: 1955), p. 389. Arabic.

The role of the BSL

At present, Lebanon remains without a true central bank; yet in the BSL, a private French institution established in 1924 with headquarters in Paris, there exists some form of central banking. Because of the privileges it was granted by the convention of 1939, the BSL is in a position to have considerable influence on the monetary system of Lebanon. According to the 1939 convention which expires in 1964, the BSL is accorded the following traditional functions of a central bank:[1] (1) the sole right of note issue; (2) the sole right to hold deposits of all public bodies; (3) the extension of credit and general banking services to the State and its agencies; and (4) the granting of accommodations in the form of rediscounts. It also is permitted to engage in all kinds of banking operations, except that of making real estate and mortgage loans.

These privileges were reaffirmed by the Franco-Lebanese monetary agreement of 1948. Consequently, the Government will be unable to take unilateral action with respect to changes in the BSL status until the expiration of the 1939 convention in 1964.

The banking activities of the BSL are conducted through the Issue and the Banking Departments. The Government, through an appointed censor, supervises the application of the provisions regarding the note issue. The Banking Department, however, is free from direct Government interference.[2]

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[1] Republic of Lebanon, Ministry of Finance, Collection of Laws of Lebanon, Monetary Laws, "Convention Between the Government of Lebanon and the Bank of Syria and Lebanon" (Beirut: May 29, 1939), pp. 13-24. Arabic.

[2] *Ibid.*, Article 22, p. 22.

The Issue Department.--The 1939 convention between the Government and the BSL specified that the Issue Department is "distinct and independent from any other business of the Bank and is charged with the operations involving the issue and withdrawal of notes. Its accounts are also separate /from the Banking Department/."[1] The separation of the Banking and Issue Departments, however, is only nominal. The Issue Department in practice is affected by conditions prevailing in the Banking Department: ". . . a need for funds in the Banking Department will induce a movement of eligible assets to the Issue Department to bring about an increase in the cash position of the Banking Department."[2]

The Monetary Law of 1949 regulates the issue of currency and the composition of the note cover. The main provisions of this law are:[3]

1. The notes issued shall be fully covered by gold, foreign exchange, treasury bills, and commerciel bills.
2. The proportion of gold and foreign exchange in the cover shall be no less than 50 per cent of the total coverage. At least 30 per cent of the total cover shall be in gold.
3. The foreign currencies which are eligible as note cover shall be determined in agreement between the BSL and the Government.
4. Commerciel bills maturing in 90 days and bearing 3 signatures shall not exceed 15 per cent of the note cover.

The Government has followed a substantial gold cover policy. As a result of this policy, (see Table 34, p. 142) the proportion of

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[1] Ibid., Article 4, p. 14.

[2] Albert Badre, "Economic Policy in Leganon," Les Conferences du Cenacle, X (June 1956), 361. Arabic.

[3] Republic of Lebanon, Ministry of Finance, Collection of Laws of Lebanon, Monetary Laws, "Note Issue and Cover" Decree No. 15105/K. (Beirut: May 27, 1949), pp. 112-116. Arabic.

TABLE 34

NOTE CIRCULATION AND COMPOSITION OF CURRENCY COVER IN LEBANON, 1948-1957

(Millions of LL)

Item	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
Note Circulation	185	168	196	208	200	205	242	266	333	356
Note Cover										
Gold	3.7	42	70	93	109	127	219	253	264	308
Foreign Exchange	123.6	39	28	13.2	--	6.6	--	--	--	--
Treasury bills and other governments	57.7	86.9	98	101.7	90.8	71.7	23.4	13.2	68.9	47.2

Source: Bulletin Statistique Trimestriel, IX (Deuxieme Trimestre, 1958), 56.

gold in the note cover increased from 2 per cent at the end of 1948 to 95 per cent in 1955. This percentage, however, dropped to 87 per cent at the end of 1957. The percentage of French francs in the cover was reduced from 67 in 1948 to 6 per cent at the end of 1951. There have been no foreign currencies in the note cover since 1954. Furthermore, no commercial bills have ever been included in the note cover.

The acquisition of gold for currency cover was accomplished by liquidating French franc assets which belonged to the BSL and by purchases of gold by the Government on the open market. The liquidation of French francs reduced that asset from LL120 million in 1948 to LL15 million by the end of 1957. (See Table 23, p. 75.) The purchase of gold started in 1953 when the Exchange Stabilization Fund acquired dollars and bought gold for note cover mostly from the United States.

The Banking Department.--The Banking Department of the BSL engages in commercial banking transactions involving the private and the public sectors of the economy. With respect to the public sector, the BSL serves as banker and fiscal agent for the central government and is the depository for all governmental agencies and municipalities. (See Table 35, p.144.) As fiscal agent for the central government, the BSL makes advances to the Government and to public agencies. The amounts of these advances are given in Table 36, p. 145. Public loans must be floated through the BSL. In addition to these functions, the BSL is custodian of the Government's subscription to international agencies. Furthermore, the director of the Bank is a member of the Exchange Stabilization Fund whose operations are conducted by the BSL on behalf of and for the account of the Government.

With respect to its operations with the private sector, the BSL deals with both private banks and the public. In its dealings with the

TABLE 35

DEMAND DEPOSITS OF THE LEBANESE TREASURY AND OTHER OFFICIAL AGENCIES WITH THE BSL, 1952-1956[a]

(Millions of LL)

End of Year	Treasury	Other Agencies	Total
1952	...	...	69
1953	...	...	108
1954	...	...	116
1955	81	64.3	145.3
1956	70.8	63.3	134.1

[a] Includes agencies with autonomous budgets like the Telephone Administration, the Litani Office, and others. Also includes municipalities.

Source: Republic of Lebanon, Ministry of Finance (Beirut), unpublished material, 1958.

other banks, the BSL is in a position to provide them with additional liquidity if needed. Since the Banking Department has free access to the Issue Department, it is possible to move eligible assets from the former to the latter and provide the means of increased liquidity, not only for the banking department but also for other banks.

Commercial banks may borrow from the BSL on open account or by rediscounting trade bills. Loans obtained on open account must be repaid within one year, but there is a provision that the BSL can call in the loan after a 45-day notice.[1] Because of this, should commercial

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[1] Economic Research Institute, American University of Beirut, Business Legislation in Lebanon (Beirut: 1956), p. 41. Mimeographed.

TABLE 36

DIRECT AND INDIRECT INDEBTEDNESS OF LEBANESE GOVERNMENT TO THE BSL, END OF YEAR, 1952-1956

(Millions of LL)

Nature of Debt	1952	1953	1954	1955	1956
Advances[a]	27.7	25.5	28.3	29.8	42.6
Treasury bills[b]	56.9	61.7	66.1	57.4	55.3
Total	84.6	87.2	94.4	87.2	97.9

[a] Treasury-guaranteed loans to municipalities and to certain Government agencies with independent budgets (Telephone Administration, for example) and to semi-Government agencies like the Agricultural, Industrial, and Real Estate Bank.

[b] Treasury bills refer to Government debt which arose as a consequence of the devaluation of the French franc in September of 1949. These Treasury bills are legally marketable but because of lack of interest in their purchases they were never sold to the public. As a result, they were wholly taken up by the BSL. (See page 172 for a more comprehensive explanation of the nature of Treasury bills)

Source: Republic of Lebanon, Ministry of Finance (Beirut), unpublished material, 1958.

banks choose to borrow on open account from the BSL, they would have to lend for a much less extended period. Trade bills with 90 day maturity may be rediscounted provided they have two signers and the rediscounting bank's endorsement. While discount rates are not announced, they have varied between a high of 6.15 in 1953 and a low of 5.31 in 1957.

In addition to providing the commercial banks with a source of liquidity, the BSL also acts as a check clearing agency since it manages the Beirut Clearing Office. All approved banks keep some deposits with the BSL for clearing purposes. These deposits have no relationship to a legal cash reserve, however, since no such reserve is required.

The banking department also serves the general public. The Bank is authorized to engage in all banking and financial operations involving the general public, except those transactions relating to real estate loans. Prior to 1950, "about half of the total private demand deposits of the Lebanese banking system was with the BSL and about 70 per cent of aggregate advances and discounts were transacted through the BSL."[1] In 1955, however, "only about 10-15 per cent of total private deposits were with BSL."[2] The percentage share of the BSL's non-public discounts and advances has also declined in recent years but not so much as the decline in percentage of private deposits.

There are several factors which partially explain the relative decline in importance of the BSL. First, the number of private banks has increased (from 21 in 1951 to 35 in 1956). These include some which are branches of strong foreign banks such as the Chase Manhatten Bank and the Netherlands Bank. Second, the privete banks pay 4 per cent or more on private demand deposits. This is in contrast to the 1 per cent paid by the BSL on government deposits while no interest is paid on private demand deposits.

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[1] Taha Yaffi, "A Case for Central Banking Reform in Lebanon," _Middle East Economic Papers, 1958_ (Beirut: American University of Beirut, 1958), p. 104.

[2] _Ibid_.

Since it is through the banking department that the BSL would tend to influence the privete banks and the economy, a brief discussion of the reletionship between the Bank and private banks may be in order. The principal borrowers from the BSL seem to have been "the French-owned or French controlled banks or the small banks and discount houses."[1] The major local banks prefer to keep excess reserves or to use the excess liquidity of their branches rather than to use the rediscounting facilities of the BSL. Branches of foreign banks tend to rely on the resources of their home office in case of need.

There are severel reasons why the private banks have not used the discount facilities of the BSL. The BSL does not announce discount rates and hence the private banks do not know in advance the terms on which essistence can be secured. This uncertainty tends to discourage banks from seeking aid as a matter-of-course event. Furthermore, the BSL is a competitor of the private banks. They fear that if they disclose the names of their clients to the BSL by rediscounting paper of their clients, that the BSL may attempt to obtain these accounts. It is also feared that if the rediscounted paper is redeemed by the client at the BSL that he will consider the need to rediscount an indication of weakness. Clients may be reluctant to continue to do their banking business with a weak bank.

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[1] Ibid., p. 105.

The fact that the BSL is privately owned and not publicly controlled and is authorized to do business with the public, may be reasons why its discount operations are based purely on profit motives and bear little or no relation to sound monetary policy. As a matter of fact, the BSL shows a tendency to increase credits when inflation threatens and to reduce them when the volume of business falls off. This is evidenced by the fact that when trade was brisk in 1952 and credit should have been checked, private demand deposits with the BSL amounted to LL79 million, but when the business recession set in in 1953, these deposits declined to LL56 million.[1] Again in March of 1956 when the Government accelerated its spending as a result of the earthquakes and floods, assets eligible for note cover were transferred from the Banking Department to the Issue Department and note circulation increased by LL10 million in one month. This increase was accompanied by a rise in the cost of living.[2] (Also see Table 41, p.159.)

Another indication of the lack of public interest in the operation of the BSL is found in its use of the rediscount rate. The annual average rate varied between a high of 6.15 in 1953 (a recession year), and a low of 5.31 in 1957 (a rather inflationary year). The situation has been described by Mr. Taha Yaffi:

> /The BSL's discount rate has not/ been used in accordance with a defined monetary policy but rather it has varied in accordance with the liquidity situation of the bank, the degree of competition of other banks and the public demand for loans.[2]

Commercial banks other than the BSL

As of December, 1956, there were 35 banking institutions in,

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[1] Badre, op. cit., p. 362. [2] Ibid., p. 363.

[3] Yaffi, op. cit., p. 106.

Lebanon, 31 of which were approved banks.[1] The remaining four were non-approved banks; i.e., they were classified as second class banks whose guarantee was not accepted by the Lebanese Government. There were also about 30 discount houses. Four of the approved banking institutions are non-commercial banks. These are the SCAIL (Societe de Credit Agricole et Industriel du Liban), the newly created (1954) BCAIF (Banque du Credit Agricole, Industriel et Foncier au Liban), and two French banks. The first two institutions grant medium and long-term loans to agriculture, industry, and real estate. The two French institutions engage largely in investment banking.

Except for the "Law of Banking Secrecy" of 1956,[2] which was designed to attract foreign capital, no legislation exists in Lebanon which applies specifically to the organization and operation of commercial banks. These banks are organized and regulated under the same laws as apply to other forms of enterprise.[3] Laws which are found in other countries simply do not exist. There is, for example, no legislation to provide for the protection of depositors nor to provide for minimum cash reserves. These matters are left to the individual banks.

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[1] "An approved bank is an institution designated by the State as one from which the Government will accept documents of guarantee on behalf of contractors engaged in public works and other governmental projects...An approved bank must have a head office or agency in Lebanon and a minimum capital of LL1 million, half of which is paid in." Middle East Economist, XIV (New York: March,1960), 45.

[2] For the text of this law see Banque Libanaise pour le Commerce, Economic Review, No. 29 (Beirut: July-August,1956), p. 7.

[3] Republic of Lebanon, Code of Commerce (Decree No. 304) (Beirut: December 24, 1942), Articles 6.4 and 9, pp. 3,5. Arabic.

Domestic banks maintain a high degree of liquidity, holding cash reserves in amounts ranging from 30 to 50 per cent of total demand deposits. In contrast, branches of foreign banks keep much lower reserves against demand deposits since they can depend on their home offices for funds when the need arises.[1] It is doubtful, for reasons indicated below, if the commercial banks will continue to maintain this high degree of liquidity in the future.

Another characteristic of the private commercial banking system is the high degree of individualism; they consider calling on one another a sign of weakness. The absence of interbank lending has been explained as follows:

> (1) most of the banks doing business in Lebanon are of diverse nationalities and since they operate in a limited market they tend to be very competitive and suspicious of each other; some of them when in need of short-term funds turn to their head offices abroad for temporary accomodations, rather than to other local banks; (2) call money or similar intra-bank credit has not yet been introduced in Lebanon; this means that a money market in its broadest meaning does not yet exist; (3) the absence of a central bank.[2]

Finally, the commercial banking system is characterized by an inadequacy of statistics. There is no such thing as a combined balance sheet nor are complete statistics published from which such a statement may be constructed. For these reasons, it will be necessary to rely upon the best available data in our discussion of commercial bank credit and the money supply.

The predominance of commercial banking establishments as well as their relatively large total capital as compared with non-commercial banks (Table 37) clearly indicates that commercial credit is the main form of credit available in the country. Commercial bank lending is limited largely to short-term mercantile transactions. Loans are generally

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[1] Badre, *op. cit.*, p. 361. [2] Yaffi, *op. cit.*, p. 103.

TABLE 37

BANKS OPERATING IN LEBANON AS OF DECEMBER 31, 1956

Name of Bank	Nationality	Date Established	Capital in Millions
Societe de Credit Agricole et Industriel du Liban[a]	Lebanese	1939	LL1
Banque Nationale Foncier Commerciale et Industrielle	Lebanese	1956	LL5
Beirut's Bank[b]	Lebanese	1936	LL.5
Banque Belgo-Libanaise	Lebanese	1953	LL2
Banque Federale du Liban	Lebanese	1951	LL3.5
Intra Bank	Lebanese	1951	LL12
Banque du Liban et D'Outre-Mer	Lebanese	1951	LL5
Eastern Commercial Bank	Lebanese	1944	LL1
Banque du Credit Agricole, Industriel et Foncier du Liban[a]	Lebanese	1954	LL5
Banque Libanaise pour le Commerce	Lebanese	1949	LL5
Banque Misr Syrie Liban	Lebanese	1929	LL3
Banque Sabbagh	Lebanese	1950	LL2
Banque Tohme	Lebanese	1942	LL1
Banque G. Trad	Lebanese	1951	LL1
Banque Zilka	Lebanese	1946	LL1
Societe Generale Financiere du Liban	Lebanese	1949	LL1
Commercial Bank[b]	Lebanese	1954	LL.2
Bank Shartuni[b]	Lebanese	1951	LL1
Banque Albert Homsy[b]	Syrian	1900	LL2
Banque de Syrie et du Liban	French	1920	Ffr.300
Arab Bank Limited	Jordanian	1944	JD1.1
Banque Nationale pour le Commerce	French	1927	Ffr.500
Banco di Roma	Italian	1936	Lit.1,000
British Bank of the Middle East	British	1946	£1
Compagnie Mediterranienne[a]	French	1919	Ffr. 6
Eastern Bank Limited	British	1956	£2
Compagnie Algerienne	French	1931	Ffr.750
Credit Foncier de Tunisie[a]	French	1921	Ffr.382
Rafidain Bank	Iraqi	1948	ID 1
Netherlands Bank	Dutch	1954	F160
Banque du Caire	Egyptian	1953	L.E.1
Bank Seoudite	Saudi Arabian	1952	LL1
Chase Manhattan Bank	U. S.	1955	$150
First National City Bank of New York	U. S.	1955	$200
Bank of America	U. S.	1956	n.a.

[a] Non-commercial banks. [b] Non-approved commercial banks.

Source: Compiled from information received from the Ministry of Justice, Beirut, Lebanon.

> in the form of discounts, documentary credit, advances on securities and overdrafts. Their maturity periods rarely extend to a year and in most instances fall within six months. Mercantile loans and discounts are extended against personal security, property, or one or two signature endorsements.[1]

No other types of short-term investments are held by commercial banks. For example, they do not hold treasury bills (with the exception of the BSL). The fact that they do not hold Treasury bills contributes to the unmarketability of those instruments and deprives the Government and the BSL of a potential instrument of open market policy.

Despite the general deficiency of data, there is material available which makes possible an analysis of bank deposits created by the banking system. For this purpose we must rely on the data furnished by the Ministry of Finance for the years 1953-1957. Private demand deposits (Table 40, p. 156) have been rising relatively faster than currency in circulation. The former increased about 92 per cent from 1952 to 1957. The latter increased only about 76 per cent. This relatively greater increase was due to several factors: (1) a rise in interest rates on demand deposits; (2) the increase in the use of checks as a means of payments; (3) the increase in bank loans and discounts extended to business; and (4) purchases of dollars by the Government on the open market for purposes of note issue cover.

The increase in the number of banks in recent years has intensified competition and accounts for the interest rate on demand deposits being as high as 4 per cent, thus inducing an increased number of people to keep money in the form of demand deposits. Such deposits increased by 92 per cent from 1952 to 1957. It should be observed, however, that time deposits have increased even more (317 per cent between 1952 and

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[1] *Ibid.*, p. 100.

1957), although in absolute terms they are relatively of less importance than demand deposits. Perhaps the relative increase in time deposits would have been even greater had not the rise in interest rates on demand deposits occurred.

The increasing use of checks as means of payment can be clearly seen in Table 38 where the value of checks cleared rose by 400 per cent from 1950 to 1957. It is undoubtedly true that the increase in the number of banks has made the convenience of checks obvious and has helped to develop faith in them.

TABLE 38

VALUE OF CHECKS CLEARED, BEIRUT CLEARING OFFICE, 1950-1957

(Millions of LL)

Year	Value of Checks Cleared
1950	364
1951	553
1952	722
1953	575
1954	640
1955	926
1956	1,222
1957	1,454

Source: Bulletin Statistique Trimestriel, IX (Deuxieme Trimestre, 1958), 57.

The growth in discounts and advances to the private sector has also resulted in an increase in bank deposits in commercial banks. "Bank credit /in Lebanon/ is generally related to the discounting of trade bills."[1] From 1952 to 1957, a period of six years, advances and discounts rose from LL271 million to LL533 million, an increase of 197 per cent (Table 39). The ratio of private advances and discounts to private demand deposits registered a low of 117 to 1952 to a high of 145 in 1956. This high ratio indicates a heavy concentration on short-term credit by the banking system.

TABLE 39

BANK LOANS AND DISCOUNTS TO THE PRIVATE SECTOR AND PRIVATE DEMAND DEPOSITS IN LEBANON, 1952-1957

(Millions of LL)

End of Year	Loans and Discounts (1)	Private demand deposits	Ratio of (1) to (2)
1952	271	232	117
1953	270	219	123
1954	308	246	125
1955	408	299	136
1956	446	307	145
1957	533	447	124

Source: Bulletin Statistique Trimestriel, IX (Deuxieme Trimestre, 1958), 54-55.

Another factor which has had a considerable effect on the volume of money and credit is government purchases of dollars on the free market for purposes of stabilization of the exchange rate. Upon instructions from the Minister of Finance, the Exchange Stabilization Fund (BSL-managed) has bought dollars on the open market and converted these into gold to be placed in the note cover against the issue of new notes.[1] The purchases of dollars are mostly from banks. These banks, after selling their foreign exchange, are in a position to expand their discounts and advances on the basis of the newly acquired Lebanese pounds.

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[1] Anwar Ali, "Banking in the Middle East," International Monetary Fund, Staff Papers VI, No. 1 (Washington: November, 1957), 61.

Money Supply and Level of Prices

Money supply

While information of monetary developments in Lebanon is incomplete, it is possible to account for the major factors contributing to variations in the money supply over a period of years. Data of the money supply and major factors influencing it are presented in Table 40. Except for a nominal drop in the money supply in 1953, there has been a continuous expansion. This expansion from LL428 million at the end of 1953 to LL808 million at the end of 1957, an increase of 89 per cent, consisted of 73 per cent increase in currency in circulation and 104 per cent increase in private demand deposits. The largest percentage increase, 25 per cent, occurred in 1957.

The slight decrease in 1953 may be explained by difficulties in the commercial sector.[2] This difficulty was accompanied by a slight tendency of banks to contract credit to the private sector. But the major factor tending to produce a reduction in the money supply was improvement in the government's position of LL34 million. These funds

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[1] For a discussion of the Exchange Stabilization Fund, see Chapter III, p. 79.

[2] The abatement of speculative buying at the end of the Korean War coupled with the sharp tightening of credit policies by banks forced some traders to liquidate their stocks of goods purchased earlier. Significant losses were suffered and some merchants were forced into bankruptcy.

TABLE 40

MONEY SUPPLY AND FACTORS AFFECTING MONEY SUPPLY IN LEBANON, END OF YEAR, 1952-1957

(Millions of LL)

Nature of Money Supply and Change	1952	1953	1954	1955	1956	1957
A. Money Supply	437	428	492	570	645	808
Currency in Circulation[a]	205	209	246	271	338	361
Private Demand Deposits[b]	232	219	246[c]	299[c]	307[c]	447[c]
Private Time Deposits	12	19	27	39	42	50
B. Changes in Money Supply		-9	64	78	75	163
Credit to Private Sector[d]		-1	38	100	58	67
Net Change in Government Position		-34	-3	-36	22	n.a.
Official Foreign Assets		44	67	34	4	35
Time Deposits		-7	-8	-12	-3	-8
Net Errors and Omissions		-11	-30	-8	-6	...

[a] Currency in circulation includes cash in tills of banks and governments.
[b] Private demand deposits are those reported for the approved banks only.
[c] Excludes demand deposits in foreign moneys.
[d] See Table 39, p.154 on Bank loans and discounts.

Source: Republic of Lebanon, Ministry of Finance (Beirut), unpublished material, 1959; and Bulletin Statistique Trimestriel, IX (Deuxieme Trimestre, 1958), 54-55.

were deposited with the BSL and hence placed pressure on the liquidity position of the private banks. In addition, the increase of time deposits absorbed funds from the money supply. The only factor tending to provide for an increase in the money supply was an increase in foreign assets of LL44 million, but this was insufficient to offset the combined effects of the other factors.

The continuous increase in the money supply from 1954 through 1957 has been the result of a combination of factors. The most significant change has been in credit to the private sector, accounting for the largest increase in all but one year. The second major factor in the growth of the money supply has been the accumulation of official foreign assets, relatively unimportant in 1956. The final factor which aided the growth in the money supply in 1956 and 1957 has been the reduction in government surplus. This reduction in surplus is largely associated with the acceleration of government spending for reconstruction and development.

The policy of increasing official gold reserves has been related primarily to avoiding further appreciation of the Lebanese pound in the free exchange market and to a desire to strengthen the reserve position. In 1953, however, the purchases of foreign exchange on the market were also related to easing the monetary stringency following the Korean boom. The increase in the official foreign assets had the effect of increasing the money supply.

Level of Prices

We are interested in price developments at this point not merely as a cost factor but also as a guide to a later analysis of the economic impact of the development program considered in this study.

Between 1945 and mid-1950 prices fell rapidly.[1] This movement was reversed by the outbreak of hostilities in Korea, which resulted in a rise in the domestic prices of imported goods and in speculative buying in anticipation of future shortages. This in turn had an immediete impact on the level of domestic wholesale prices end living costs. The lack of restrictions on trede or exchange made possible the importation of large quantities of goods destined for Lebanon for subsequent resale to other Arab countries in the region. Purchasing power in these Arab countries (Iraq, Saudi Arabia, Jordan, and Syria) had increased because of the expansion of petroleum production or because of the rise in prices of such primary raw materials as wool, cotton, and wheat which constitute their main export products. Lebanese merchants became middlemen or commission agents for most of the adjacent countries.

During 1951 the wholesale price and living cost indexes increased by 26 per cent and 8 per cent respectively (1950=100). Thereafter, prices began to decline, mainly because of abatement of speculative buying. By the end of 1952 the wholesale price index had fallen by 12 per cent though the cost of living index remained the same. (See Tables 41 end 42.)

The relative dullness in the commodity market in Beirut during 1953, however, further brought down prices from their 1951 and 1952 levels. This dullness was due primarily to a fall in the local prices of imported commodities, a sharp curtailment in the rete of expansion of bank credit, and subsequent liquidations of stocks of goods purchased earlier at higher prices. While prices fluctuated narrowly throughout

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[1] Republic of Lebanon, Ministry of Finance, Budget Report for 1952 (Beirut: 1951), p. 12. Arabic.

TABLE 41

INDEX OF WHOLESALE PRICES IN LEBANON, 1951-1957

1950 = 100

Type of Index	1951	1952	1953	1954	1955	1956	1957
Food Stuffs	124	123	108	92	96	106	110
Combustibles	98	99	99	98	98	102	114
Raw materials	144	109	98	93	87	87	85
Finished Goods							
Textiles	138	103	91	92	92	91	90
Others	138	115	106	100	98	102	101
Construction	122	121	103	101	111	112	116
General Index	126	114	103	95	96	101	105

Source: *Bulletin Statistique Trimestriel*, IX (Deuxieme Trimestre, 1958), 34.

TABLE 42

COST OF LIVING INDEX IN BEIRUT, 1951-1957

1950 = 100

Type of Index	1951	1952	1953	1954	1955	1956	1957
Food	112	115	104	97	99	109	120
Housing	105	105	105	114	114	105	147
Light and Fuel	101	100	96	96	98	101	117
Clothing	109	106	98	90	90	90	90
Miscellaneous	97	93	92	91	92	93	101
General Index	108	108	101	96	98	104	112

Source: *Bulletin Statistique Trimestriel*, IX (Deuxieme Trimestre, 1958), 33. (Base year changed from 1939 to 1950 by this writer.)

1954, the declining trend continued. In that year, the wholesale price index stood at 95 and the cost of living index stood at 96.

In 1955,the gradual downward movement of prices which had continued throughout 1953 and 1954 was reversed, partly because of monetary expansion and increases in the prices of imports from Syria which experienced a poor crop year.[1] Furthermore, some transit difficulties were experienced with Syria. Although the wholesale price index showed an increase of over 2 per cent, there was a pronounced increase in the construction price index of 11 per cent. The latter increase was due primarily to the private construction boom. In 1955, 1,261 building permits were issued in Beirut alone as compared with a national total of 1,095 permits in 1954 and 798 permits in 1953.[2]

The wholesale and cost of living indexes in 1956 showed an increase over the previous year of slightly over 5 per cent and 6 per cent respectively. Several factors were responsible for this rise. Among these were the shortage of building materials resulting from the reconstruction activity of areas devastated by the floods and earthquakes of February and March of that year and the subsequent rise in wages resulting from that activity.[3] Another factor influencing the rise in prices was the Suez crisis.

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[1] United Nations, Economic Developments in the Middle East, 1955-1956 (New York: 1957), p. 7.

[2] Republic of Lebanon, Ministry of Finance, Proposed Budget for 1958 (Beirut: 1957), p. 140. Arabic.

[3] Republic of Lebanon, National Reconstruction Office, First Annual Report (Beirut: August,1957), p. 89. Arabic.

The continued pressure on resources by the public as well as by the private sector (mainly for building construction) and the greater expansion of money supply in relation to the much slower rate or growth in national product are believed to be the principal factors causing the rise in prices in 1957.[1] The rise in the cost of living index of almost 8 per cent in 1957 was shared by all categories except clothing and was particularly steep in food items and rentals. The former rise was due to increased costs of imports as a result of scarcities in Syria which supplies Lebanon with most of its cereal requirements. The scarcities in Syria were due to drought conditions for the previous two years. The latter increase was due to the elimination of government controls on rentals of non-luxury type of housing.[2]

Government Finances

Government budgets

The activities of the central government of Lebanon are financed through three different types of budgets:[3] the ordinary budget; extraordinary budgets, three in number; and special budgets, five in number. The Government does not publish a consolidated statement of all its budgets. Little detailed information is made available about expenditures outside of the ordinary budget, thus rendering the budgets loose instruments of control over public expenditures and making difficult a critical analysis of Lebanon's Government finances.

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[1] National product in 1957 was estimated at LL1,580 million, an increase of 8 per cent over that of 1956 while the increase in money wupply for 1957 was 25 per cent. Middle East Economist, XII (New York: April, 1958), 60.

[2] U. S. Department of Commerce, Economic Developments in Lebanon, 1957 (Washington: 1958), p. 4.

[3] Data on Special and Extraordinary budgets are taken from Republic of Lebanon, Parliamentary Reports, 1953, pp. 405-506; 1954, p. 1060; 1955, pp. 20-54, 447-492. Beirut. Arabic.

The ordinary budget.--The ordinary budget finances the regular and recurring social and economic activities of the various ministries. It accounts for the bulk of government expenditures. Although the ordinary budget includes capital expenditures, these are usually limited to small projects with the exception of road building and maintenance, and public building programs (schools and hospitals) of the Ministry of Public Works. Such expenditures, however, rose sharply from LL11.2 million in 1954 or about 10 per cent of the ordinary expenditures to LL36.2 million in 1957 or about 18 per cent of the ordinary expenditures. (See Table 46, p. 169)

The ordinary budget is always balanced at the time of its presentation to Parliament. Revenues are conservatively estimated on the basis of the average of the two last budget periods for which the accounts have been closed. In view of this method of estimating revenues and in view of the rising level of economic activities in recent years, surpluses have generally been realized. This was the case from 1944 to 1957 with the exception of 1950.[1] Budget surpluses are transferred to the Reserve Fund from which appropriations are made for loans and for development. In addition, some appropriations are made from the Reserve Fund to meet ordinary expenses. So, in a particular year, there is a two-way transfer between the ordinary budget and the Reserve Fund.[2]

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[1] In 1950, the Syrian-Lebanese Customs Union was ended. The immediate impact of that event was a sharp decline in the level of economic activity. Revenues especially from indirect taxes and duties declined. United Nations Relief and Works Agency, Quarterly Bulletin of Economic Development, No. 13 (Beirut: April,1956), p. 213.

[2] See Table 48, p. 174.

The difference between the appropriations made in the ordinary budget and those allocated from the Reserve Fund for development is that while the former lapse if not used at the close of the fiscal year, the latter are automatically renewed from year to year until used.

Extraordinary budgets.--Extraordinary budgets are those devoted exclusively to major economic development projects. These budgets include: (1) Development Works Fund, designed to finance major public works; (2) National Litani Office, created in 1954 to execute the Litani River hydro-electric and irrigation project; and (3) National Reconstruction Office, created in 1956 for a period of three years to undertake the reconstruction of areas devastated by the earthquakes of March 1956. Extraordinary budgets are financed mainly from three sources:[1] (a) loans from the Treasury and elsewhere; (b) charges and taxes upon beneficiaries of development works; and (c) withdrawals from the Reserve Fund. Unused appropriations in the extraordinary budgets, as indicated, are cumulative.

Special budgets.--Special budgets are those of agencies set up to perform specific functions, chiefly of the public utility type. Agencies financed in this way are: (1) The Wheat Office, which was retained from World War II for the purpose of providing the country with stocks of wheat; (2) the Telephone Administration; (3) The Common Electricity and Transport Service; (4) The Beirut Water Service; and (5) The Bureau of National Lottery.

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[1] In addition to the three sources of revenues, the National Reconstruction Office leview special taxes for the duration of its life as defined by the law creating it. Republic of Lebanon, National Reconstruction Office, First Annual Report (Beirut: August,1957), pp. 20-21. Arabic.

The rationale of separating some of these special budgets from the ordinary budget is not at all clear. For example, whereas the Telephone Administration has a separate autonomous budget, the Posts and Telegraphs Department are part of the ordinary budget.

The various special budgets derive their main revenues from the sale of services and commodities. The Government supplements these receipts from direct appropriations, direct Treasury loans, and/or from Treasury-guaranteed loans from the BSL. The net deficits or surpluses of the special budgets are carried either to the ordinary budget or to the Reserve Fund.

Revenues and expenditures

It is impossible to present a reliable consolidated budget for Lebanon because of paucity of data on extraordinary and special budgets, particularly the latter. For this reason, the following discussion on revenues and expenditures will have to be confined to the ordinary budget.

Ordinary budget receipts and expenditures have shown a steadily rising trend since Lebanon achieved independence in 1946. Since that time, current revenues and expenditures have increased more than fourfold.[1] Since tax rates, direct and indirect, have not increased, and the price levels are lower than in the immediate postwar period, this increase in revenues is due primarily both to the comparative improvement in tax administration and to a rise in the level of economic activity. Ordinary budget revenues and expenditures for the years 1952-1957 are presented in Table 43. During this period, revenues expanded by 68 per cent whereas expenditures increased by 117 per cent. The annual percentage increases in revenues and expenditures are also shown

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[1] United Nations Relief and Works Agency, op. cit., p. 208.

TABLE 43

ORDINARY BUDGET TOTAL REVENUES AND TOTAL EXPENDITURES IN LEBANON, 1952-1957

(Amounts in millions of LL)

Calendar Year	Revenue			Expenditure			Surplus or Deficit (-) (3)=(1)-(2)
	Amount[a] (1)	Annual Percentage Change	Index (1952=100)	Amount[b] (2)	Annual Percentage Change	Index (1952=100)	
1952	124.9	---	100	88.5	---	100	36.4
1953	141.2	13.0	113	96.3	9.0	109	44.9
1954	157.4	11.5	126	111.2	15.4	126	46.2
1955	178.9	13.7	143	132.4	19.0	150	46.5
1956	192.0	7.3	154	161.3	21.8	182	30.7
1957	209.9	9.3	168	192.4	19.2	217	17.4

Source: [a]Table 44.
[b]1952-1953: Republic of Lebanon, Ministry of Finance, Budget Report for 1958 (Beirut: 1957), p. 170. Arabic.

in the table.

Ordinary budget revenues are classified in Table 44 under five main categories: direct taxes and similar duties; indirect taxes and fees; income from public domain and enterprises; and miscellaneous revenues. The percentage contributions of various sources of revenues are presented in Table 45. Indirect taxes contribute nearly 60 per cent of ordinary budget revenues. Within these indirect taxes, customs duties remain the largest source of revenue, usually accounting for 35 per cent or more of total revenues. Consumption taxes are the next largest source of ordinary budget revenues. As regards other sources of revenue, there have been some increases in recent years in the relative importance of various fees and dues and revenues from government enterprises. The latter reflects the purchases by the government of a number of enterprises, largely public utilities previously owned by foreign concessions, such as Beirut Electricity and Transport Service which was acquired in 1953. Income tax collections have risen substantially in recent years but their relative share in total revenue has remained practically unchanged at 10 or 11 per cent.

Increasing expenditures, on the other hand, reflect the general expansion of government activities. These include expenditures on security, economic activity, and social services.

A summary of ordinary budget expenditures by type for the years 1954-1957 is presented in Table 46. Government expenditures are divided into two main parts--current expenditures, including military, and capital expenditures. The division of expenditures by function represents an improvement in budget structure. This is particularly important when we consider the demands for resources for

TABLE 44

REVENUES OF THE ORDINARY BUDGET OF LEBANON BY SOURCE, 1952-1957

(Amounts in thousands of LL)

Source of Revenue	1952	1953	1954	1955	1956	1957
I. Direct Taxes and Duties, Total	32,247	36,183	43,071	47,783	56,377	63,007
A. Direct Taxes, Total	19,690	23,114	26,750	27,347	33,354	37,594
Building Tax	3,716	4,315	5,544	6,535	7,556	9,754
Land Tax	567	518	619	286	579	583
Income Tax	13,546	15,664	17,495	16,302	20,066	22,212
Inheritance Tax	97	597	624	834	1,079	682
Private Vehicle Tax	1,292	1,508	1,910	2,598	3,216	3,473
Others[a]	472	512	558	792	858	890
B. Registration and Stamp Duties, Total[b]	12,557	13,069	16,321	20,436	23,023	25,413
II. Indirect Taxes, Total	74,030	83,062	93,043	102,391	108,032	118,623
Excise Duties on inflammables	17,540	17,469	17,711	13,903	16,305	17,128
Excise Duties on Tobacco	16,802	16,617	16,741	17,741	15,637	17,947
Customs Duties	36,737	45,715	55,512	67,574	71,859	78,951
Others[c]	2,951	3,261	3,079	3,173	4,231	4,597
III. Public Domain and Exploitative Services, Total[d]	5,003	5,469	4,804	6,918	6,488	7,676
IV. Miscellaneous Revenue, Total	13,647	16,518	16,526	21,771	21,083	20,636
Payments of Foreign Companies	7,301	7,199	4,493	8,565	5,692	4,920
Others[e]	6,346	9,319	12,033	13,206	15,391	15,716
TOTAL REVENUES	124,927	141,232	157,444	178,863	191,980	209,942

[a] Taxes on animals and on wireless receivers.

[b] Legal, notarial, and consular fees.

[c] Taxes on liquor and salt.

[d] Revenues from: posts and telegraph, Official Gazette, and Lighthouses Department, sale of movable property and land.

[e] Includes revenues of hospitals, fines and judgements, gambling fees, airport fees, and pensions receipts.

Source: Compiled from Bulletin Statistique Trimestriel, IV (Quatrieme Trimestre, 1953), 43-44; V (Quatrieme Trimestre, 1954), 64-65; VI (Troisieme Trimestre, 1955), 58-59; VII (Troisieme Trimestre, 1956), 59-60; VIII (Deuxieme Trimestre, 1957), 43-44; and IX (Deuxieme Trimestre, 1958), 47-48. Beirut.

TABLE 45

PERCENTAGE DISTRIBUTION OF REVENUES OF THE ORDINARY BUDGET OF LEBANON BY SOURCE, 1952-1957[a]

	Source of Revenue	1952	1953	1954	1955	1956	1957
I.	Direct Taxes and Duties, Total	25.8	25.6	27.4	26.7	29.4	30.0
	A. Direct Taxes, Total	(15.8)	(16.4)	(17.0)	(15.3)	(17.4)	(17.9)
	Building Tax	3.0	3.1	3.5	3.7	3.9	4.6
	Land Tax	...	...	...	...	...	...
	Income Tax	10.8	11.1	11.1	9.1	10.5	10.6
	Inheritance Tax	...	...	...	...	...	...
	Private Vehicles Tax	1.0	1.1	1.2	1.5	1.7	1.7
	Others	...	...	...	...	...	...
	B. Registration and Stamp Duties, Total	(10.0)	(9.2)	(10.4)	(11.4)	(12.0)	(12.1)
II.	Indirect Taxes, Total	59.3	58.8	59.1	57.2	56.3	56.6
	Excise Duties on Inflammables	14.0	12.4	11.2	7.8	8.5	8.2
	Excise Duties on Tobacco	13.4	11.8	10.6	9.9	8.1	8.5
	Customs Duties	29.4	32.4	35.3	37.8	37.4	37.6
	Others	2.4	2.2	2.0	1.9	2.2	2.2
III.	Public Domain and Exploitative Services, Total	4.0	3.9	3.0	3.9	3.4	3.7
IV.	Miscellaneous Revenue, Total	10.9	11.7	10.5	12.2	10.9	9.8
	Payments of Foreign Companies	5.8	5.1	2.9	4.8	2.9	2.3
	Others	5.1	6.6	7.6	7.4	8.0	7.5
	TOTAL REVENUES	100	100	100	100	100	100

[a] Detail will not necessarily add to totals because of rounding.

(...) denotes less than 1 percent.

Source: Based on Table 44.

TABLE 46

CURRENT AND CAPITAL EXPENDITURES OF THE ORDINARY BUDGET OF LEBANON, BY ECONOMIC CATEGORY, 1954-1957[a]

(Amounts in thousands of LL)

Purpose of Expenditure	1954		1955		1956		1957	
	Current	Capital	Current	Capital	Current	Capital	Current	Capital
I. Administration, Finance and Justice[b]	17,733	1,703	19,697	2,219	19,861	1,254	26,566	1,132
II. Security[c]	32,109	-----	38,079	-----	48,497	1,767	58,216	1,874
III. Economic Activity[d]	9,139	8,999	9,863	18,403	12,377	22,092	13,315	29,633
IV. Social Services[e]	17,533	1,000	19,792	3,191	22,845	3,154	28,363	3,213
V. Other Departments[f]	3,541	124	3,787	103	4,057	285	5,144	360
VI. Debts Payable[g]	19,302	-----	16,348	895	25,159	-----	24,651	-----
TOTALS	99,357 +	11,826	107,566 +	24,811	132,796 +	28,552	156,255 +	36,212
TOTAL EXPENDITURES (Current and Capital)	111,183		132,377		161,348		192,467	
TOTAL REVENUES[h]	157,444		178,863		191,980		209,942	
Surplus	46,261		46,486		30,632		17,475	

[a] Budget Classification Law of 1954 as reported in the 1954 Parliamentary Reports, p. 410, established for the first time a differentiation between types of expenditures within each ministry. These expenditures are divided into three classes: I. Current expenditures of the non-defence ministries. II. Capital expenditures on new equipment and construction not connected with defence. III. Defence expenditures. (These are separate from current and capital but were included under current in the table above for lack of space.)

[b] President, parliament, prime minister, and ministries of finance, foreign affairs, and justice.
[c] Defence, external and internal.
[d] Public works, agriculture, national economy, and planning.
[e] Health, education, and social affairs.
[f] Posts, telegraphs, and information.
[g] Debts, pensions, redemption of Treasury bills, and expenditures of previous years.
[h] See Table 44, p. 167.

Source: Compiled from Bulletin Statistique Trimestriel, VI (Troisieme Trimestre, 1955), 60-63; VII (Troisieme Trimestre, 1956), 61-64; VIII (Deuxieme Trimestre, 1957), 45-48; and IX (Deuxieme Trimestre, 1958), 49-53. Beirut.

development programs outside the ordinary budget.

An examination of the movements of government revenues and expenditures between 1954 and 1957 (Table 43) reveals that the latter expanded considerably more than the former. Expenditures for this period rose by almost 75 per cent whereas revenues expanded by only 34 per cent. The absolute increase in expenditures between these years amounted to LL81.2 million while the increase in revenues during the same period amounted to LL52.5 million. The increased ordinary budget expenditures were shared by all government departments. That the increased ordinary budget expenditures between 1954 and 1957 were shared by all government departments is shown in Table 46. Defense, social services, and economic activity, however, absorbed the largest shares of the total increase. As can be seen in Table 46, defense and internal security expenditures alone rose by LL28 million between 1954 and 1957 or by about 87 per cent. Expenditures on economic activity more than doubled; rising from LL18.1 million in 1954 to LL42.9 million in 1957. The relative percentage shares of expenditures of the various government departments are shown in Table 47. The table clearly indicates that the economic activity category has increased relatively more than any other type of expenditure for the period, 1954-1957.

The public debt

At the end of 1956, the Lebanese public debt consisted of LL55.3 million in Treasury bills held exclusively by the BSL and of LL42.6 million in the form of Treasury-guaranteed advances from the BSL to certain government agencies with independent budgets and to

TABLE 47

PERCENTAGE DISTRIBUTION OF EXPENDITURES FOR THE ORDINARY BUDGET OF LEBANON BY TYPE AND CATEGORY, 1954-1957[a]

Purpose of Expenditure	1954		1955		1956		1957	
	Current	Capital	Current	Capital	Current	Capital	Current	Capital
I Administration, Finance and Justice	15.9	1.5	14.9	1.7	12.3	.7	13.8	.6
II Security	28.9	...	28.8	...	30.0	1.1	30.2	.9
III Economic Activity	8.2	8.1	7.5	13.9	7.7	13.7	6.9	15.0
IV Social Services	15.7	.9	15.0	2.4	14.2	1.9	14.7	1.7
V Other Departments	3.2	.1	2.8	...	2.5	.2	2.7	.2
VI Debts Payable	17.3	...	12.3	.6	15.6	...	12.8	...
Totals	89.2	10.6	81.3	18.6	82.3	17.6	81.1	18.4
TOTAL EXPENDITURES (Current and Capital)	100		100		100		100	

[a] Detail will not necessarily add to totals because of rounding.

Source: Based on Table 46.

municipalities.[1] The Treasury bills were issued in 1949 to replenish the note cover which was mostly composed of French francs and which had depreciated vis-a-vis the dollar.[2] As the Government chose not to devalue the Lebanese pound, it had to compensate the BSL for losses sustained in the assets of the note cover. Although they were marketable, these Treasury bills were not taken up by the commercial banks or the general public. The bills are of two types: one-year bills carrying an interest rate of 1 per cent and two-year bills bearing an interest rate of 1½ per cent. However, there is a Government stipulation in each case that 3 per cent will be redeemed annually and the rest is renewable at the option of the Treasury. The low interest rates borne by these securities and the lack of interest in them displayed on the part of banks are probably the factors which contributed to their not being marketed. As a result, the outstanding Treasury obligations resulting from the two issues have been held by the BSL ever since 1949.

The International Bank's loan of $27 million made for the development of the Litani project is the only external obligation of the Lebanese Government at present.

The cash position of the Treasury

The lack of complete information on government finances makes it extremely difficult to get a clear picture of the over-all fiscal position of the Government. Even though the ordinary budget resulted in surpluses for the years 1943-1957 with the exception of 1950, it is not to be assumed that these surpluses are available to finance development projects considered in this study. It is believed that Tables 48 and 49 present the best available figures on the gross assets of government reserves and of the net cash reserves.

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[1] See Table 36, p. 145.

[2] Republic of Lebanon, Ministry of Finance, Collection of Laws of Lebanon, Monetary Laws, Decree No. 581 (Beirut: December 8, 1949), pp. 117-119. Arabic.

The cumulative balance of the Reserve Fund at the end of 1956 amounted to LL180 million (Table 48). This amount is carried forward to Table 49 showing the composition of the Reserve Fund. The reserves of the Wheat Office and National Lottery were also added, thus making the gross assets of the Reserve Fund LL188 million at the end of 1956.[1] Against this sum, many obligations were incurred. Total non-repayable expenditures amount to LL35,041,000 while repayable loans, though assets, further reduce the case balance in the amount of LL98,756,000, leaving LL55,003,000 in the form of demand deposits with the BSL.

Cash balances of the Treasury amounted to LL70 million at the end of 1956 while the deposits of independent government agencies including municipalities amounted to LL63 million (Table 35, p. 144). The discrepancy between the cash assets in Table 49, viz., LL55 million, and Treasury deposits with the BSL for the same period, viz., LL70 million, is presumably due to the LL12 million subscription of Lebanon to the international agencies which is kept on deposit with the BSL. Although the LL12 million is included in Treasury deposits, this figure was, nevertheless, deducted in order to arrive at the net cash position of the Reserve Fund in Table 49 since this sum is payable on call.

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[1] All surpluses or deficits are carried finally to the Reserve Fund, even if in the first instance they are carried to ordinary budget. In this instance, they were obviously carried directly to the Reserve Fund.

TABLE 48

RESERVE FUND OF LEBANESE GOVERNMENT, 1942-1956

(Amounts in thousands of LL)

Year	Gross Surplus of Ordinary Budget	Transfer from Reserve Fund to Ordinary Budget	Transfer from Reserve Fund to Development Works Fund	Net Change in Reserve Fund	Cumulative Balance Carried Forward in Reserve Fund at End of Year
1942					9,170
1943	7,508	2,413	5,572	-477	8,693
1944	10,217	142	950	9,125	17,818
1945	23,274	3,963	10,031	9,280	27,098
1946	27,162	5,240	20,370	1,552	28,650
1947	42,118	16,852	---	25,266	53,916
1948	23,425	14,738	18,500	-9,813	44,103
1949	25,591	21,626	9,000	-5,035	39,068
1950	17,287	18,492	19,590	-20,795	18,273
1951	32,998	17,742	---	15,256	33,529
1952	58,905	22,487	2,503	33,915	67,444
1953	66,209	21,286	12,680	32,243	99,687
1954	81,794	35,532	7,836	38,426	138,113
1955	90,856	44,410	17,597	28,849	166,962
1956	99,774	69,142	16,969	13,838	180,800

Source: (1942-1952) United Nations Relief and Works Agency for Palestine Refugees, Quarterly Bulletin of Economic Development, No. 13 (Beirut: April, 1956), p. 237.
(1953-1956) Republic of Lebanon, Ministry of Finance, Proposed Budget for 1958 (Beirut: 1957), pp. 58, 172. Arabic.

TABLE 49

STATUS OF GOVERNMENT RESERVE FUNDS, DECEMBER 31, 1956[a]

(Amounts in thousands of LL)

GROSS ASSETS: TOTAL	188,800
1. Balance of Reserve Fund at the end of 1956	180,800[b]
2. Transfer of Reserve of Wheat Office, 1955	5,000
3. Transfer of Reserve of National Lottery	3,000
NON-REPAYABLE EXPENDITURES: TOTAL	35,041
1. Deficit in the account of the Palestine refugees	6,501
2. Payment of World War II damages	647
3. Loans to Ministries of Foreign Affairs and Defence	9,207
4. Loan of one month's salary to government employees	2,436
5. Purchase price of the telephone system	4,700
6. Deficit in the Telephone Service, 1952-55	3,550
7. Obligations incurred by government without appropriations	8,000
NET ASSETS: TOTAL	153,759
REPAYABLE LOANS: TOTAL	98,756
1. Amounts earmarked as contributions to IMF, IBRD, and IFC	12,000
2. To Telephone Service	8,479
3. To National Litani Service	5,000
4. To Agricultural, Industrial, and Real Estate Bank	2,000
5. To Beirut Water and Electricity Service	43,950
6. To municipalities	2,680
7. To National Reconstruction Office	24,647
CASH ASSETS: TOTAL	55,003

Source: [a]Compiled from United Nations Relief and Works Agency for Palestine Refugees, *Quarterly Bulletin of Economic Development*, No. 13 (Beirut: April, 1956), p. 238; Republic of Lebanon, *Parliamentary Reports, 1955* (Beirut: 1955), pp. 34-38, 642, Arabic; Republic of Lebanon, Ministry of Finance, *Proposed Budget for 1958* (Beirut: 1957), pp. 173-175. Arabic.

[b]Based on Table 48, p. 174.

CHAPTER VIII

DOMESTIC FINANCING OF THE DEVELOPMENT PROGRAM

Domestic financial requirements for all projects in the development program amount to LL187 million. Phase A of the Litani Project requires an average of about LL10 million in each of the six construction years; the average annual requirements on other projects amount to LL18 million for seven years. Reference to Table 33 shows that these averages represent a much higher rate of expenditures in the early years than in later years.

Before considering the timing of domestic finance, the various potential sources of domestic funds must be examined. These sources include the Reserve Fund, anticipated future additions to the fund, the sale of State property, additional taxes, and debt. The decision to use any or all of these sources must be based on the adequacy of funds as well as on the anticipated effects expected from the use of each.

The Reserve Fund

In the determination of how the burden of finance should be allocated, account must be taken of the existing fiscal and budgetary structures of Lebanon. The government's policy appears to have been to maintain current receipts in excess of current expenditures. This objective prevailed from 1943 to 1957. With the exception of 1950, the

Government realized surpluses, credited to the Reserve Fund,[1] which amounted to LL188.8 at the end of 1956.[2] With such an accumulated surplus, one might be inclined to propose that the development program be financed entirely from the Reserve Fund. There is no doubt that a large portion of the program can and should be financed from this fund. In fact, that is what has actually been proposed by the Government.

The Parliament passed a law on December 30, 1955, authorizing the Treasury to advance the National Litani Office the sum of LL60 million over a period of six years, an average of LL10 million a year.[3] This sum is to be taken from the Reserve Fund. In addition, laws have been passed appropriating funds for all the projects listed in Table 31, page 125, also to be financed from the Reserve Fund. Continuing projects have always been financed from the Reserve Fund.

Either of the three parts of the development program might conceivably be financed from the Reserve Fund if it were the only development program proposed. Exclusive reliance on the Reserve Fund to finance the whole development program is out of the question.

The so-called surplus fund is deceptive. Its size and, therefore, the availability of funds would be substantially reduced if proper account were taken of the nature of its assets. The status of the Reserve Fund is presented in Table 49 (page 175), insofar as it can be ascertained from available data. Total assets of the Reserve

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[1] In 1950 the Lebanese-Syrian Customs Union was dissolved. A sharp decline in the level of economic activity occurred. Revenues especially from indirect taxes declined resulting in a net deficit in the Ordinary Budget of LL1.2 million.

[2] Table 48, p. 174.

[3] Le Commerce du Levant (Beirut) February 29, 1956.

Fund on December 31, 1956 were LL188.8 million. Of this amount LL35 million had been allocated to projects and were non-repayable; and LL98.8 million had been allocated for financing projects and were to be repaid, leaving an unallocated balance in the fund of LL55 million which is kept in the form of deposits with the BSL. To this surplus of LL55 million should be added LL2.3 million a year[1] (a total of LL16 million for the seven-year construction period) that would be made available from repayments of loans made from the Reserve Fund. While there is no amortization schedule for all loans made, only fragmentary data being available, it is estimated that a total of LL71 million (surplus, LL55 million and loans to be repaid, LL16 million) is available for the local financing of projects. Obviously, then, the local financial requirements, viz., LL187 million, cannot be met by the Reserve Fund as it stood at the end of 1956.

Budget surpluses have been realized in most years since 1943. If the prospects were for continued surpluses it would be possible to rely exclusively on the Reserve Fund. As a matter of fact, government sources in predicting in 1954 that an annual surplus in the magnitude of LL12 million could be expected to materialize in the immediate succeeding years really underestimated its size. The actual surpluses which were diverted to the Reserve Fund exceeded this amount. (See Table 48, p. 174.)

Recent government reports, however, show that the surplus is declining rapidly and therefore the former estimate of the size of the ordinary budget surplus (LL12 million annually) cannot be accepted for the immediate future. This is evident from the movements of revenues and expenditures in recent years. For example, between 1954 and 1957, expenditures rose from LL111 million to LL192 million (an increase of almost 75 per cent) while revenues for the same period rose from LL157.4 million to LL210 million (an increase of only 34 per cent).[1] It can also be shown that as a result of these movements the ordinary budget surplus decreased from LL30.6 million in 1956 to LL17.4 million in 1957 (a decrease of 43 per cent.)[2] Further evidence indicates a continued curtailment of the surplus. It is pertinent to mention in this connection that the government is facing the problem of higher pay for its now meagerly paid technical and other employees. There are additional variables to be considered such as increased expenditures for defense and the ever-expanding government activities. Defense and internal security expenditures alone increased by 87 per cent from 1954 to 1957.[3] All this means an increase in current expenditures which will drastically reduce the surplus or perhaps even wipt it out. The conclusion is that none of the LL116 million can be relied upon to come from government surpluses over the construction period.[4]

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[1] Republic of Lebanon, Parliamentary Reports, 1954 (Beirut: 1954), p. 856. Arabic.

If this analysis is correct, it would mean that in addition to LL55 million available from already existing reserves and the LL16 million available from repayments of loans made by the Reserve Fund, an additional sum in the vicinity of LL116 million will have to be financed by other means.

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[1] Table 43, p. 165.

[2] _Ibid._

[3] Table 46, p. 169.

[4] In a recent interview (December, 1959) with Messrs. Sanbar and Brakel of the International Bank, the writer was informed that preliminary estimates for 1959 place the Ordinary Budget surplus at less than LL300,000.

Sale of State Property

One possible source of funds is from the sale of government-owned property. This is valued at LL50 million.[1] While sales have been made (income from this source amounted to LL494,000 in 1953, LL784,000 in 1954, and LL619,000 in 1955),[2] it would be necessary to sell all government-owned property to obtain a substantial part of the additional LL116 million needed in this way.

Even if the Government decided to sell this property, it is fairly certain that the proceeds would go for the erection of government buildings to house the various ministries now scattered in different parts of the City of Beirut.[3] Because of this consideration, the sale of government property is not a very reliable source of funds for the financing of the development program.

Taxation

The foregoing analysis indicates that the resources of the Reserve Fund are not sufficient to meet all the requirements of the development program. It was also concluded that sale of government property cannot be considered available for financing the development projects. Other means of local finance need to be investigated. One possible method is through increased taxation.

The major part of government revenues is derived from levies on consumption which take the form of excise taxes and import duties.

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[1] Republic of Lebanon, Parliamentary Reports, 1953 (Beirut: 1953), p. 411. Arabic

[2] Republic Lebanon, Proposed Budget for 1958 (Beirut: 1957), p. 166. Arabic.

[3] Republic of Lebanon, Parliamentary Reports, 1953 (Beirut: 1953), p. 379. Arabic.

It is necessary at the outset to state the historic reliance on indirect revenues in Lebanon. In the first place, there is a general feeling in government circles that Lebanon, being a trade and commercial center, cannot afford to place heavy taxes on the commercial and financial sectors considered to be the pillars of the Lebanese economy. Secondly, the collection of direct taxes requires an honest and highly developed tax administration.

Although it is hard to arrive at accurate estimates of percentage of national income taken in tax revenue from year to year because many municipalities and independent budgets are not published, some data are available for 1953 and 1955. In 1953, current tax revenues of the central government and the major municipalities amounted to LL150 million, or LL111 per capita on the basis of a population of 1,353,000.[1] With a net national product of LL1,137 million in the same year, tax revenues represented about 13 per cent of net national product. It has been estimated that per capita tax revenue amounted to LL130 in 1955.[2] With a population of 1.4 million in 1955, total tax revenue could be estimated at LL182 million. With a national product of LL1,303 million in 1955, tax revenues represented about 13 per cent of net national product. This ratio seems small in comparison with that found in more progressive countires and should be increased in view of the importance of public savings to the development program.

Whether taxation can absorb a higher percentage of national income depends upon (1) the prospects for a change in attitudes of the public, (2) the measures taken by the Government for strict enforcement of existing tax laws, and (3) the adoption of a tax structure revised to include steeper direct tax rates. The third condition is necessary in spite of the following view expressed by the Parliamentary Finance Committee: " . . . an increase in revenues through additional taxes, we reject . . . completely."[1] However, the position here taken concerning strict enforcement of existing tax laws does conform with the views of the Parliamentary Finance Committee which has expressed itself favorably toward greater equity.[2]

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[1] United Nations Relief and Works Agency for Palestine Refugees, Quarterly Bulletin of Economic Development, No. 13 (Beirut: April, 1956), p. 253.

[2] Republic of Lebanon, Parliamentary Reports, 1955 (Beirut: 1955), p. 576. Arabic.

Undoubtedly, some of the inequities can be corrected, and increased revenues can be realized through the introduction of efficient administrative machinery for assessment and for collection, especially of direct taxes. Evasion of direct taxes is a serious problem in Lebanon. Informed opinion holds that if an effective system of tax collection were enforced, revenues from the income tax under the existing system would increase by 50 per cent or between LL8 million and LL10 million a year.[3] An indication of the laxity with which the tax laws are enforced in Lebanon is shown by the fact that the land tax enacted in 1951, supposedly to become effective in 1953, is still not operative.

While the writer does not agree with the Parliamentary Finance Committee that an increase in revenue through additional taxes must be rejected, he is of the opinion that reform in tax administration must precede a change in tax structure if it is to be effective. However, because of the political power wielded by the wealthier people--and they are at the helm of the Government--reforms such as those suggested above will be difficult to achieve.

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[1] _Ibid._, p. 30.

[2] _Ibid._, p. 30.

[3] Republic of Lebanon, _Parliamentary Reports, 1953_ (Beirut: 1953), p. 397. Arabic.

Domestic Debt

Since sufficient domestic funds needed to finance the development program are not likely to become available through the Reserve Fund, from the sale of government property, nor from the imposition of additional taxes, it will be necessary to increase the public debt. The possibility of borrowing the necessary funds, viz., LL116 million over the seven-year construction period, must now be investigated.

Dr. Albert Badre of the American University of Beirut has analyzed at some length the problems and prospects for floating a public debt in Lebanon.[1] Although he suggests that between "LL20 million and LL30 million may be raised annually by means of a public debt,"[2] he lists the following obstacles that face the flotation of marketable government securities in Lebanon:[3]

> 1. The lack of "confidence in the ability of the government, or in the business ability or integrity of its officials" is such that the attempt to float a public debt in Lebanon has not been successful.
>
> 2. The fear that "the BSL may dominate government loan policy which would not be desirable in view of the private interests which dominate that institution." [This fear is justified by the fact that there is an agreement between the BSL and the Government

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[1] Albert Badre, "Economic Development of Lebanon with Emphasis on Finance," (Unpublished Ph.D. dissertation, Department of Economics, State University of Iowa, 1950).

[2] Ibid., p. 202.

[3] Ibid., pp. 208-213.

> which declares the former to be the fiscal agent of the Government, the sole agent for the issue of currency and for floating a public debt.]
>
> 3. "The market rate of interest in Lebanon tends to be rather high" which would make debt servicing costly. [Even commercial banks pay as high as 4 per cent interest on demand deposits. Under such circumstances it is unlikely that either commercial banks or individuals would be willing to absorb an issue of government securities at anything like a reasonable rate of interest.]

Badre suggested some solutions to these obstacles. The first obstacle could be "overcome by means of budgetary reforms, public audit, and heavy publicity."[1] The second obstacle could be dealt with by reordering negotiations with the BSL, thus making it conform to government loan policy. The third obstacle "must be attacked by a deliberate policy of cheapening credit and by providing a special financial inducement for the public to lend . . . funds used for purchase of government bonds must be exempt from income tax."[2]

Badre concludes that the government will not have difficulty in securing the needed funds through a public loan. In reality, however, it may prove very difficult to sell any securities to the public. Badre's study was made in 1950. Conditions for the floatations of public loans were not then, nor are they now, favorable.

In the first place, it should be stated that the lack of confidence in the Government is deeply rooted in the social pattern. It is an institutional problem and it is doubtful whether it can be overcome by the type of reforms suggested by Badre. Although matters have noticeably improved since the days of colonialism, a generation of patience and honest performance on the part of public officials may be required before this distrust is dispelled.

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[1] *Ibid.*, p. 348.

[2] *Ibid.*, p. 349.

> . . . The Ottoman and Mandatory administration had left their legacy in the mind of the public. The former had been indifferent about socio-economic affairs, while the French had sought to further only interests favorable to their own. Both had planted a deep suspicion and hatred of public authorities in the minds of the people which cannot disappear quickly.[1]

In the second place, re-ordering of negotiations with the BSL may be difficult. The BSL still operates under the 1939 convention with no prospects for change in its basic structure until 1964.

Furthermore, there is still a decided preference on the part of savers to invest in real estate and in commercial enterprise[2] where returns are high and quick. A money and capital market that could attract national savings and transfer these for investment in development projects is therefore still lacking.

In spite of these adverse conditions, it is impossible to predict the extent to which government securities might be absorbed by the public. Perhaps the Government should test the market. On the other hand, the only thing in the way of a precedent is an attempt made in 1949 to introduce Treasury bills into the market when the Government had to compensate the BSL for devaluation losses sustained in the note cover. The bills were marketable and an effort was made by the BSL to sell them. But this sale did not materialize for essentially the same reasons stated by Badre. Conditions have not changed significantly since 1949, and there is no reason to assume that government securities will be purchased by the general public any more readily now. The Government will have to resort to other outlets for its securities.

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[1] A.E. Mills, "Economic Change in Lebanon," Middle East Economic Papers, 1956 (Beirut: American University of Beirut,1956), p. 94.

[2] Paul Klat, "The Future of Economic Development in the Arab World," Middle East Economic Papers, 1956 (Beirut: American University of Beirut, 1956), p. 61.

One such possibility is to borrow from insurance companies. These companies are required under the insurance law of 1956 to keep reserve deposits with a government-approved bank.[1] In view of this requirement, the Chairman of the Parliamentary Finance Committee expressed the following view:

> Internally, loans will be progressively easier to float especially after the coming into force of the new insurance law. This law in effect requires insurance companies to invest part of their funds in Lebanon. Their representatives assure us that the companies they represent will accept for purchase State-guaranteed bonds at 3 per cent interest. There is no reason why they should not buy bonds issued by the Lebanese Republic at 3 per cent interest.[2]

Contrary to this view, it seems reasonable to suppose that if insurance companies are to be induced to keep their required reserves in Government securities, then those securities must bear competitive rates of interest and 3 per cent is insufficient. Even cash deposits which fulfill the legal requirements of the insurance law earn from 3½ to 4 per cent interest. The low rate of interest quoted by the Chairman of the Parliamentary Finance Committee and his suggestion that the insurance companies keep their reserves in the form of government securities would limit the scope of their investment and restrict the number of insurance companies operating in Lebanon. If insurance companies are to be induced to absorb a portion of the LL116 million needed by the development program they must be offered government securities on favorable terms. Nothing is known about investment outlets that presently absorb insurance funds but it is certain that there is no prospect of diverting any of these funds to government securities on the basis of the terms and conditions stated by the Chairman of the Parliamentary Finance Committee.

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[1] The Insurance Law of 1956 requires "all insurance companies, foreign and domestic, operating in the country, to post guarantees in the form of cash deposits or other approved securities to be kept in Government-approved banks, in the value of LL50,000 for life insurance and LL25,000 for each other branch of insurance." Furthermore, "life insurance companies must retain in Lebanon assets equal to 100 per cent of the mathematical reserves against outstanding life insurance policies. Transport insurance must keep 25 per cent of the preceding year's premiums, and all other kinds of insurance must keep 40 per cent of the preceding year's premiums." Insurance Law, February 3, 1956. Articles 6 and 9. Official Gazette, No. 6 (Beirut: February 8, 1956), pp. 54-58. Arabic.

[2] Le Commerce du Levant (Beirut) January 28, 1956.

The Government will have to turn to the BSL and to other banks for the needed LL116 million. This could be achieved by requiring the banking system to hold reserves in the form of Government securities.

The acquisition of government securities by the banking system poses at least one important problem which must be faced. Since the banking system maintains what is considered excess liquidity, ranging between 30 per cent and 50 per cent, the holding of government securities would be possible on the basis of a reduction in this liquidity. The banking system would increase deposit liabilities in the amount of government securities it was required to absorb. But because of the lack of public acceptance of government securities these securities would probably not provide liquid assets for the banking system as a whole.[1] Individual banks may, however, attain liquidity through inter-bank sales and purchases of government securities.

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[1] Another problem to be faced, although not directly related, is the fact that commercial banks other than the BSL pay as much as 4 per cent interest on demand deposits. This should be reduced by law to a rate not exceeding that paid on government securities. Otherwise the acquisition of these securities would have the effect of exerting pressure on banks to keep their assets working and could easily lead them into making unduly risky investments. This situation might very well have the effect of shaking the confidence of the public in the banking system.

Funds might be afforded the Government as required by the imposition of a special reserve requirement to take the form of Government security holdings. This special reserve would be based on the banks' deposit liabilities. Since the BSL occupies the unique position of fiscal agent of the Government and a Bank of Issue, it would be natural for the BSL to assume a greater role in absorbing government securities than other private banks. Should this special reserve requirement in any bank get out of line because of an increase or decrease in deposit liabilities, the banks would have to conduct sales and purchases of securities. In this way, a market for government securities will gradually develop.

While the total amount to be borrowed is LL116 million, the amount to be borrowed in some years is greater than in others. The annual needs for domestic funds compared to the amounts available on a construction year basis are presented in Table 50. The assumption is that the program will be financed principally with already available reserves. Although it is possible to use all the assets of the Reserve Fund before resort is made to borrowing, the table shows that borrowing starts from the first year of construction. This is thought to be advisable since heavy concentration of debt in any one year might exert an undue pressure on banks.

TABLE 50

ANNUAL DOMESTIC CURRENCY REQUIREMENTS AND POSSIBLE SOURCES OF FUNDS BY CONSTRUCTION YEAR

(Thousands of LL)

Category	1	2	3	4	5	6	7
Requirements:[a]	27,687	38,514	35,030	30,564	25,764	17,398	12,304
Sources:[b]							
Assets of Reserve Fund	13,387	24,214	17,399	---	---	---	---
Amortization of Reserve Fund Loans	2,300	2,300	2,300	2,300	2,300	2,300	2,300
To be financed	12,000	12,000	15,341	28,264	23,464	15,098	10,004

Source: [a]Table 33, p. 132.
[b]Text of present and previous Chapters.

CHAPTER IX

FOREIGN FINANCING OF THE DEVELOPMENT PROGRAM

Total outlays in foreign funds required by the Litani and by other extraordinary as well as going projects are estimated at about LL208 million. In this chapter, the various sources of funds for meeting these foreign currency requirements will be discussed.

Securing of foreign exchange to pay for capital imports is one of the basic problems of development in underdeveloped countries. Since the Litani and other development projects are government-sponsored, the problem of raising the necessary foreign exchange requirements becomes the responsibility of the Government of Lebanon.

Total foreign exchange requirements of the development program (LL208 million) are equivalent to about $64 million. Of this amount, $27 million have been made available by the International Bank for Reconstruction and Development to finance Phase A of the Litani Project, and LL19.4 million or the equivalent of $6 million have been made available by the United States Government for various other projects. This leaves a total of approximately $31 million to be financed from other sources.

Potential sources of foreign funds include (1) loans from the International Bank for Reconstruction and Development, (2) private investment, (3) loans and grants from foreign governments, and (4) the Lebanese Government's earnings of foreign exchange.

International Bank for Reconstruction and Development

Since Lebanon is a member of the International Bank, it should look to that institution for loan assistance. In fact, since 1948 the Government of Lebanon has been in almost continuous consultation with the International Bank concerning development loans.[1] In August, 1955, the International Bank announced it had granted the Lebanese Government a loan of $27 million for the development of Phase A of the Litani River Project. The question is: can Lebanon depend on additional loans from the International Bank to help finance the remaining $31 million needed for the development program? It seems highly improbable that tha Bank will entertain favorably any further request from Lebanon at this time. In the first place, the $27 million is tha first external debt of the Lebanese Government and will, therefore, be the first test of its credit worthiness. Lebanon must demonstrate its ability to service and repay the debt prior to requesting additional funds from the Bank. In the second place, the resources of the Bank are limited and the demands on it are large. The $27 million loan very probably represents all Lebanon can expect to receive in the near future. And, finally, the Government of Lebanon has made no application for further loans from the International Bank and has given no indication that it will do so.

Private Foreign Loans

Private investment may be either in the form of direct investment or of portfolio lending. The latter, which played a dominant role in the international financing of economic development prior to the depression in the 1930's, has not become insignificant. Aside from the painful experience of private investors with foreign loans in the 1930's, unstable political and economic conditions in the world, particularly in underdeveloped countries, act as deterrents to the revival of international private lending on any significant scale. In particular, the underdeveloped Middle East is in a continuous state of political turmoil. Governments come and go and because of this instability foreign investors cannot rely on the guarantees of governments.

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[1] See International Bank for Reconstruction and Development, Fourth Annual Report, 1948-1949 (Washington: 1949), p. 32; Tenth Annual Report, 1954-1955 (Washington: 1955), pp. 31-32.

In the post-World War II period, private foreign lending has usually been between countries which maintain close monetary, political, and commercial relations.[1] The recent uptrend in U. S. private investment abroad bears no relationship to direct lending to foreign governments. Private foreign investment, particularly in backward countries, has been confined to the "extractive industries--oil fields, mines, and plantations producing for the export market."[2] Since the development program in Lebanon is in the nature of "social overhead investment," it is not the type to attract direct investment of foreign capital. On the basis of the foregoing discussion it would seem highly unlikely that a Lebanese Government loan could be successfully floated abroad. Private foreign loans, therefore, should be ruled out as a possible source of funds for the financing of economic development in Lebanon.

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[1] United Nations, Department of Economic Affairs, The International Flow of Private Capital, 1946-1952 (New York: 1954), p. 40.

[2] Ragnar Nurkse, Problems of Capital Formation in Underdeveloped Countries (Oxford: Basil Blackwell, 1953), p. 24.

Loans and Grants from Foreign Governments

There is also the possibility of expanded United Nations aid to the Middle East, in which event Lebanon might possibly be one of the recipients. Furthermore, the West German Government, which has succeeded in establishing a market for its products in the Middle East in the postwar period, might be considered a likely source of loan assistance to Lebanon. However, these prospects are based on conjecture and cannot possibly be appraised at this time. The only offer of aid (other than that from the United States)[1] has been made by the Soviet Government. The Lebanese Government, however, refused the Soviet offer.

Government's Receipts of Foreign Exchange

The Government has substantial foreign exchange income. This would seem to be a logical source of foreign exchange to meet the additional financial needs of the development program, viz., $31 million. To evaluate the potentialities of this, it is necessary to weigh current foreign exchange earnings against expenditures.

From the earning side the situation is clear enough. The main income for the Government comes from royalties paid by the Iraq Petroleum Company and by the Trans-Arabian Pipelines for transit rights. These payments are in the form of dollars and sterling. From 1951 to 1956 the royalties averaged $2.6 million annually.[2] The Government also realizes about $1 million annually from the Beirut International

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[1] The prospects of obtaining additional funds from the United States are considered in the next section, Infra, p. 198.

[2] Data from 1951 through 1953 were secured from the Ministry of National Economy by letter dated August 12, 1955. Data for 1954 through 1956 were taken from Bulletin Statistique Trimestriel VI (Troisieme Trimestre, 1955), 59; VII (Troisieme Trimestre, 1956), 60; and VIII (Deuxieme Trimestre, 1957), 44.

Airport,[1] thus bringing the Government's total annual earnings to $3.6 million. Recently the Government has concluded new agreements with the oil companies, effective 1958, whereby the latter would pay about $12 million annually in royalties. Four million dollars would be paid by Tapline[2] and the balance, i.e., the equivalent of $8 million dollars would be paid by IPC in Sterling.[3] The Government may then anticipate an annual income the equivalent of approximately $13 million in foreign exchange.

On the other hand, foreign expenditures are not readily ascertainable. The Lebanese Government has to pay for its consular and diplomatic corps abroad. These expenditures can be ascertained from the closed budget accounts; they are stated at $1.1 million in 1955 and $1.3 million in 1956.[4] But it is also necessary to make allowances for capital and defense expenditures under the Ordinary Budget which require foreign currencies, and in this connection there is an absence of information. It may be possible, however, that the additional payments, about $10.4 million per year, from the oil royalties will be available to finance the foreign exchange requirements of the development program.

Liquidation of Excess Gold Holdings

An alternative method to determine the ability of the Government to meet foreign exchange needs of the development plan is to examine the official holdings of gold and foreign exchange with the view of determining the possibility of utilizing part of these to finance the development projects. The Government and the BSL have, over the past few years, accumulated substantial gold and foreign exchange reserves as shown in Table 51. Over half of these acquisitions have been purchased on the local market at the prevailing free rates. Data are not available to allocate the ownership of these between the Government and the BSL. It will be assumed that it is possible to utilize some of the excess to meet the cost of the development program.

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[1] Bulletin Statistique Trimestriel, 1956, ibid., p. 60.

[2] Banque Libanaise pour le Commerce, Economic Review, No. 28 (Beirut: June,1956), p. 4.

[3] Middle East Economist XI (New York: May,1957), 74.

[4] Bulletin Statistique Trimestriel VII (Troisieme Trimestre, 1956), 62; VIII (Deuxieme Trimestre, 1957), 46.

By reference to the data in Table 51, it can be seen that gold and foreign exchange in the cover are much above the minimum of 50 per cent required by law. At the end of 1957 the accumulated excess cover was LL142 million or the equivalent of $43 million. But before we can suggest using the exchange cover to finance the foreign exchange needs of the development program several questions must be explored. The first is, are other eligible assets available to substitute in the cover? The second, how much of the excess reserve is needed to provide for (1) fluctuations in the balance of payments, (2) changes in note circulation? And finally, what effect would the withdrawal of the gold and foreign exchange have on confidence in the Lebanese currency?

Present requirements are that the cover for currency in circulation shall consist of gold, foreign exchange, Treasury bills, and commercial bills, with at least 50 per cent of the cover in the form of gold and foreign exchange. Commercial bills may not exceed 15 per cent of total cover requirements. Although commercial bills have never been included in the cover, the supply of commercial bills

TABLE 51

NOTE CIRCULATION, REQUIRED COVER, AND EXCESS COVER, 1950-1957

(Millions of LL)

End of Year	Note Circulation (1)	Total Foreign Reserves (2)	Ratio of (2) to (1) % (3)	Required Note Cover[a] (4)	Accumulated Excess Cover (5)	Annual Change in Excess Cover (6)
1950	196	134	68	98	36	
1951	208	147	71	104	43	7
1952	200	154	77	100	54	11
1953	205	189	92	103	86	32
1954	242	245	102	121	124	38
1955	266	280	105	133	147	23
1956	333	283	85	167	116	-31
1957	356	320	90	178	142	26

[a] The Monetary Law of 1949 specifies that the proportion of gold and foreign exchange in the cover shall be no less than 50 per cent of total coverage.

Source: For Column (1), Bulletin Statistique Trimestriel, IX (Deuxieme Trimestre, 1958), 56; for Column (2), Ministry of Finance, Proposed Budget for 1958 (Beirut: 1957), p. 157, Appendix 25. Arabic.

in Lebanon (LL446 million in 1956) is adequate, and it is entirely possible to expect them to become the 15 per cent of the cover as permitted by law. However, if the Government does not choose to include commercial bills in the note cover, it will be necessary to place additional Treasury bills in the note cover in exchange for the withdrawn gold.

At the end of 1956, government obligations included in the cover toteled LL69 million. This was about 70 per cent of the total government debt outstanding. In order to release some of the gold and foreign exchange from the cover, therefore, it will be necessery to include all the government debt in the note cover. In the event that more treasury bills are needed, it will be necessary to increase the public debt of Lebanon. The mechanics of making the excess cover aveilable would not be considered a serious problem. It would be necessary for the Government to issue Treasury bills in exchange for the gold. These Treasury bills would in turn replace the withdrewn gold in the currency cover. As a consequence, the Government debt would increase by the amount of the newly issued Treasury bills.

If we eccept the conclusion that commercial bills and/or Treasury bills can be substituted for gold and foreign exchange in the cover, it then becomes necessary to determine how much of the excess cover it is desireble to withdraw. Two fectors need to be considered. The first, what amount of gold and foreign exchange is likely to be needed to provide for an expansion in the money supply? If we assume an increase in notes over the next seven years equal to that which occurred over the lest seven years, the increase will be 80 per cent or about LL280 million. This would require all of the accumulated excess cover as of the end of 1957. If we assume an increase of half this rate, the excess cover which could be used for the development projects would total approximately LL70 million or $21 million.

The second problem which we need to consider is the need for gold and foreign exchange to meet fluctuations in the balance of payments. Lebanon had a surplus in its balance of payments in each of the 5 years from 1951-1955. This surplus ranged from LL18.9 million to LL57 million and has averaged LL35million. While the development projects may place certain strains on the balance of payments as a result of reduced exports of cement and increased imports[1] this reduction is not likely to product a deficit in the balance of payments.

Two forces meed to be considered with respect to this conclusion. The United States made available to Lebanon, through the International Cooperation Administration, $23.4 million from 1952 to mid-1956.[2] This amount is just a little less than the excess cover which accumulated during that period. If U.S. aid should be discontinued, or seriously reduced in the near future, it could have serious effects on the balance of payments surplus. It should be noted, however, that this is only a remote possibility. The Congressional Committee to Study the Foreign Aid Program has strongly endorsed such continuation.[3] On the other hand, as a result of gold movements from the United States, there is substantial support for a reduction in U.S. grants-in-aid to foreign countries. Furthermore, the agreements of the United States government to provide dollar assistance for specific projects of the development program will probably be considered in connection with future grants. Since these grants have already been included in estimates of available foreign exchange, total aid which may be anticipated in the future should be reduced by these amounts. If the United States grants in the future are only 50 per cent of those in the past or $11 million, it will be necessary to divert an average amount of $2 million from other foreign exchange sources to compensate for these reductions.

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[1] _Supra_, Chapter V, p. 118.

[2] _New York Times_, June 4, 1956, p. 1.

[3] U.S. Congress, Senate, Special Committee to Study the Foreign Aid Program, _Lebanon, Jordan, and Iraq, Report on United States Foreign Assistance Program_, 85th Congress, 1st Session, 1957, p. 18.

Some loss in foreign exchange earnings through changes in exports and imports is likely to occur. Using 1955 data, for example, cement exports were LL3 million. The development program will end these exports and may require the import of cement supplies. Loss of cement exports would mean, therefore, a loss of about $1 million of foreign exchange earnings. The need for foreign exchange to purchase additional imports must also be taken into consideration. It does not seem unrealistic, therefore, to estimate that balance of payment surpluses will be reduced by between $3 and $6 million.

On the basis of these estimates, it will be necessary to compensate for reduction in foreign exchange earnings and to supply increased foreign exchange demands of between $5 million and $8 million annually. This will leave between $5.4 million and $2.4 million from the net addition of $10.4 million to be received from oil royalties to finance foreign exchange requirements of the development program. It may be possible to expect to obtain between $16.8 million and $37.8

million from additional oil royalties over the seven year construction program. If the smaller amount is realized, an additional $15 million of foreign exchange must be obtained from other sources, such as a reduction in gold and foreign exchange reserves.

The proposed reduction in gold and foreign exchange reserves for the purpose of financing part of the needed foreign funds for the development program, even though it will not violate the present rules of currency cover, is likely to be regarded with misgivings in some circles. A number of economists in Lebanon, for instance, believe that a substantial gold cover inspires confidence in the local currency, nationally and internationally.[1]

Drawing on these foreign exchange and gold reserves may conceivably have some adverse effects. However, these misgivings no doubt stem from a mistaken idea of the strength of the Lebanese economy. The present status of the Lebanese currency unquestionably rests on the ability of Lebanon to render internationally desired services and not on gold reserves. It seems that, in weighing the desires to maintain excessive currency cover against the necessity of financing the development projects, the Government needs to make a policy decision. With the prospects of expanding the productive capacity of Lebanon, which after all, is the aim of the development program, the proposed withdrawal of part of the excess gold in the currency cover would be more desirable economically than keeping the gold idle. Judging from past experience as revealed in Column 6, Table 51, LL31 million in the form of excess cover ought to be sufficient to meet any unusually unfavorable situations such as occurred in the year 1956, a year which witnessed floods, earthquakes, and the Suez crisis. If we add these to the excess cover considered desirable for currency expansion already discussed, it will reduce by approximately $30 million the gold and foreign exchange which may be withdrawn from the excess cover.

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[1] See Albert Badre, "Economic Policy in Lebanon," Les Conferences du Cenacle, X (June,1956), 365-66. Arabic; Paul Klat, "The Future of Economic Development in the Arab World," Middle East Economic Papers, 1956 (Beirut: American University of Beirut, 1956), p. 61.

In summary, then, it would seem that Lebanon can obtain at least $2.4 million annually from oil royalties to finance the development program. These may be supplemented by $10 million of gold and foreign exchange withdrawn from the excess note cover. These sources would, therefore, provide a total of $26.8 million of the $31 million needed. The annual requirements and sources of funds are summarized in Table 52. It is possible, of course, that either the oil royalties may provide larger amounts (resulting from annual demands less than we have assumed) or that the note issue will expand at a lower rate and hence free a larger amount from the excess cover. If neither of these events happen, however, then the balance of payments of Lebanon will be subjected to substantial pressure in certain years. And by the end of the fifth construction year, it is possible that the note issue will be reaching the maximum permitted by the 50 per cent gold and foreign exchange reserve requirement.

TABLE 52

ANNUAL FOREIGN EXCHANGE REQUIREMENTS AND POSSIBLE SOURCES BY CONSTRUCTION YEAR

(Thousands of U.S. dollars)

Category	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Requirements[a]	3,106	6,991	8,235	7,398	4,828	3,219	3,219
Sources:[b]							
U. S. aid[c]	696	2,554	1,393	619	743	...	...
Annual public revenue	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Excess gold cover	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Brought forward from previous year	-0-	1,390	753	-0-	-0-	-0-	581
Surplus carried forward	1,390	753	-0-	-0-	-0-	581	1,162
Government purchases of foreign exchange	-0-	-0-	2,289	2,979	285	-0-	-0-

Source: [a] Table 33, p. 132.
[b] Text of present chapter.
[c] See Chapter VI, p. 126.

PART IV. POTENTIAL EFFECTS OF THE DEVELOPMENT PROGRAM

CHAPTER X

ECONOMIC IMPACT OF THE DEVELOPMENT PROGRAM

The preceding chapters have undertaken to explore the potentials of the Lebanese economy in the light of the implementation of the Litani and other projects. As a necessary background a description of the outstanding characteristics of the economy has been attempted. The physical requirements of the projects have been surveyed; and the country's capacity to support the program, both with material and financial resources, have been set forth.

No doubt, the carrying out of a program of the magnitude discussed in the preceding chapters will have far-reaching immediate effects on the economy, quite aside from the hoped-for long-run achievements. It is the purpose of the remainder of this study to consider these immediate effects and, in view of them, to indicate various possible means whereby such effects, if found unfavorable, might be mitigated.

It must be borne in mind, as has been pointed out repeatedly in this study, that statistical data on the Lebanese economy are scanty. The American University of Beirut has made valuable contributions. But, in spite of this, information is so far from adequate that it would be futile to pretend to make a quantitative analysis of the impact of the development program on the Lebanese economy during the period of construction. The best that can be done is to use the limited information available and in the light of economic theory arrive at conclusions which are primarily of a qualitative nature. This approach admittedly lacks precision, but it is believed that the qualitative approach can throw considerable light on the nature of the impact of the development program on the economy.

The examination of the impact on the economy during the period of construction will be approached under certain assumptions. It will be assumed that:

1. The development projects are undertaken as scheduled and within a framework of relative internal political stability. Any significant change which may cause delays in construction or instability during the period of construction may also invalidate the conclusions to be drawn.

2. No major international crisis develops which will adversely affect the normal flow of international trade involving Lebanon. This is important in view of the great dependence of the economy on international trade.

In the course of the years required for the completion of the development program, many economic dislocations will occur. The size and distribution of the national income will be affected and, consequently, the levels of consumption, saving, and investment are likely to undergo changes. Finally, the price level and balance of payments will also undergo change. All of these economic variables will be discussed in the succeeding pages.

Expenditure Effects of the Development Program

It should be emphasized again that accurate prediction of the effects of the development program requires the use of data which do not exist for Lebanon. Even if the data were available, calculating the strictly developmental effects would be extremely difficult. The variables to be considered are numerous. For instance, a prediction of the change in the size of the national product is little more than a guess, however carefully made, since it is hardly realistic to assume that the general economic situation will be constant during the period of construction. This would be true even if variables such as propensities to consume, to import, and to save, were known; and it is hardly to be expected that these would remain constant over the seven-year construction period.

Since changes in the size and distribution of income are bound to occur during the period of construction, some indication of these changes, however rough, will be attempted. This rough guide to the possible changes will be made under very simple assumptions. It will be assumed that: (1) net national product will continue to increase at a constant annual rate equal to that achieved in most recent years, not including expenditures on the development projects, and (2) taxes will continue at the same level--namely, 13 per cent of the net national product. No propensities being known, they will for the time being be ignored.

The outlay of LL395 million envisaged by the development program amounts roughly to an average annual outlay of LL54 million over the seven-year construction period. Of this annual outlay, LL29 million will be spent on imports of capital goods and technical services, and LL27 million will be spent for local goods and services. Except for expenditures on continuing public works, which amount to LL11.5 million annually, the expenditures for the development program represent additional outlays. Of the LL11.5 million, LL6.9 million are in the form of local currency, and the balance, LL4.6 million, in foreign currencies. The cost estimates of the program presented in this study do not include housing reconstruction resulting from the 1956 earthquakes and floods. Concurrently with the development program, housing reconstruction will require an additional outlay of LL74 million. Converted to a yearly basis, this is approximately equal to expenditures for the continuing projects. The impact of the development program on the level of expenditure may, therefore, be measured by the LL395 million required by the development program.

Effects on income

With regard to the determination of the effects of development expenditures on total income, we need only to consider total domestic expenditures. Foreign exchange expenditures are significant at this point only insofar as they call forth accompanying domestic expenditures on labor and materials. In this case, direct imports for the program will be secured through loans, grants, and previously-accumulated foreign reserves. Imports secured in this way will not cause increases in the money income of Lebanon.

As pointed out earlier, total domestic expenditures on the program amount to LL187 million, or roughly an annual outlay of LL27 million. The ratio of total domestic expenditures to net national product (1956) amounts to nearly 13 per cent. More significant, however, would be to relate domestic expenditures to national product by construction year, assuming the latter will continue to grow at an annual compounded rate of 5.58 per cent.[1] Estimates of national product over the period of construction are presented in Table 53.

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[1] The percentage rate of growth (compounded) for the six-year period, 1950-1956, was used in preference to a shorter period, because

TABLE 53

EXPENDITURE EFFECTS OF THE DEVELOPMENT PROGRAM ON NATIONAL PRODUCT OF LEBANON BY CONSTRUCTION YEAR

(Millions of LL)

Construction Year	(Base NNP LL1,465 million for 1956) NNP Without Program Expenditures[a]	NNP With Program Expenditures[b]
1	1,547	1,572
2	1,633	1,698
3	1,724	1,828
4	1,820	1,961
5	1,922	2,096
6	2,029	2,230
7	2,142	2,367

[a] Rate of increase in NNP assumed to be 5.58 per cent compounded.

[b] Arrived at by the following formula: Current Year = (Previous Year + 5.58 per cent x Previous Year) + Construction Expenditures. Rate of growth is also assumed to be 5.58 per cent.

Source: Projected from Tables 4 and 55, pp. 19, 216.

The projected increase in net national product is substantial, even without the development program. The seven year increase will equal LL595 million or 38 per cent. This compares with an increase of LL442 million or 42 per cent over the six-year period 1950-1956. If expenditures on the development program are included in the projections, then the total increase will be LL820 million, or 53 per cent. The difference of LL38 million between development (local) expenditures (LL187 million) and the resulting increase in net national product (LL225 million) is due to the assumed growth rate because the annual development expenditures will add to the economic base and future production. In each of the seven years, the annual rate of growth, including development expenditures, is estimated in excess of 6 per cent. This is greater than the annual rate of growth in all except two of the years for which net national income data are available.

Some question may be raised with respect to the validity of the projected changes in net national product. While they are only a rough approximation of what may be expected, they should serve as a guide to the direction and magnitude of changes. As a measure of the magnitude of change,they probably suffer from being too small rather than too large. This is due to the fact that we have discounted the importance of the latest data in selecting the growth rate of 5.58 per cent. Furthermore, no allowance has been made for the effect of expectations

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it reflects a more representative figure--one which is not influenced by an unusually high or low annual rate of growth. In choosing the percentage rate of real growth, preference was given to the wholesale price index instead of the cost of living index. The wholesale index is more broadly based and more nearly reflects production than does the cost of living index, which reflects consumers' goods. See Table 4, p. 19.

and private expenditures. If the multiplier were assumed to be greater than one, then the magnitude of the real net national product with development expenditures would be greater. However, no information is available to make an estimate of the multiplier. Even if this information were available, for reasons similar to the ones advanced on page 230, the multiplier would most likely work in purely monetary terms.

Methods of financing the projects

The extent to which the development project will influence the Lebanese economy during the construction period will depend on several factors. One of these is the source of funds used to finance the projects. Inasmuch as the program is financed by taxation and/or by borrowing from the public (current savings), its implementation need not give rise to inflation. But, as already indicated, the program will be financed by a combination of methods two of which are inflationary in character. These are the previously accumulated reserves of LL55 million and the creation of government securities of LL116 million to be absorbed by the banking system. Over 90 per cent of the domestic expenditures will, therefore, be derived from inflationary sources. Only the LL16 million to be obtained from the amortization of loans made by the Reserve Fund which are to be repaid from current income, are not inflationary.

The inflationary character of spending out of previously accumulated reserves is not difficult to explain. These reserves, it will be recalled, are kept on deposit with the BSL, no other bank being allowed to hold Government deposits. These deposits have been accumulated over several years and have been largely inactive. Once they have been activated to finance the development program, they are likely to be transferred to the private banks and become a part of the total money supply. Since the private banks do not maintain substantial reserves with the BSL, the transfer will be accomplished largely by the payments of cash from BSL to the private banks. This act, in and of itself, will decrease the cash position of the Banking Department of the BSL and will cause it to move eligible assets from the Banking Department to the Issue Department against the issue of new notes.[1] Utilization of the Reserve Fund to finance the project has the effect, then, of an initial increase in the money supply. It also increases the liquidity of the private banks which places them in a position to expand their deposits. And finally, it leads to an increase in note issue by the BSL, which maintains its liquidity and lending position while at the same time reducing the excess gold in the note cover.

With regard to borrowing from the banking system, it may be said that this process may result in a net addition to deposits in the amount of the loan, providing, of course, that banks do not wish to reduce their lending activities to the private sector. And within the framework in which the banking system operates, especially with the high interest rates paid on demand deposits, it is not likely that such a reduction in private loans will occur. In that case banking liquidity will decrease. Borrowing from the banking system under these assumptions will undoubtedly give rise to a greater increase in national income and money supply than if funds were raised exclusively through taxation.

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[1] See Chapter VII, pp. 140-41 for a full explanation of this process.

Income distribution

The effect of expenditures on the distribution of income among income groups is also significant. In analyzing the effects of these development expenditures, a consideration should be given to the pattern of total income distribution among the various groups of population. Here again, it must be emphasized that the lack of information is most frustrating. In the first place, no up-to-date information is available on the economically active male population. The latest figures are for 1950 and the reliability of these is doubtful. Secondly, no reliable data exists about the economic status of the various socio-economic groups. Thirdly, no complete breakdown of national income by factor earning--wages, profits, interest, and rent--is available. Finally, no information is available concerning the distribution of income from abroad among the various groups. The discussion presented below is based on data gathered from the best available sources. The data, moreover, must be considered as approximate only. The above difficulties mean that in analyzing the income distribution, income from abroad must be excluded.

The size of the economically active male population in 1950 was estimated at 357,000 (See Table 3). The fragmentary data given by Dr. Albert Badre of the American University of Beirut indicate that the percentage distribution of net national product in 1950 by distributive shares stood as follows:[1] 58 per cent profits and interest; 30 per cent wages and salaries; and 12 per cent rent. Total net national product in 1950 amounted to LL1,023 million.[1] According to the distribution of income by factor indicated above, it follows that wages and salaries accounted for LL307 million, profits and interest LL593 million, and rent LL123 million.

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[1] Albert Badre, "Le Revenu National au Liban," L'Economie Libanaise et le Progres Social (Beirut: Editions les Lettres Orientales, 1956), pp. 18-26.

Income distribution by socio-economic groups for 1950 is presented in Table 54. This table sheds some light on the social structure of the economy. Three categories of income groups can thus be differentiated within the economy: (1) the low income group; (2) the middle income group; and (3) the wealthy group.[2]

In the low income groups are included all persons whose income is below LL2,000 per year. This category includes primarily wage earners and accounts for more than three-fourths of the economically active male population. Within the low income groups two sub-categories can be distinguished. Firstly, there are those that earn an income of less than LL550 per year, which is probably below subsistence.[3] Included in this group are all agricultural laborers and some non-agricultural workers. The second category consists of those earning an income anywhere between LL600 and LL2,000 per year; this includes small farmers, some employees in the commercial sector, and employees of handicrafts.

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[1] _Ibid_., p. 26.

[2] The following discussion on income distribution is based on Elias Gannage's essay "La Redistribution des Revenus au Liban," _L'Economie Libanaise et le Progres Social_ (Beirut: Editions les Lettres Orientales, 1956), pp. 163-193.

[3] Legislative decree No. 29/ET of May 12, 1943 sets the minimum wage at LL75 per month or LL900 per year. Gabriel Menassa, _L'Economie Libanaise et le Reforme de L'Etat_ (Beirut: Imprerie Catholique, 1948), p. 441.

TABLE 54

DISTRIBUTION OF INCOME OF ECONOMICALLY ACTIVE MALE POPULATION BY INCOME SIZE CLASS, 1950

(Number in Thousands)

Income Size Class in LL	Agriculture					
	Land-owners	Agricultural Workers	Independents[a]	Non-Agricultural Salaried and Wage Earners	Total[b]	Per Cent of Total Economically Active
0-1,999	99	70	20	86	275	77
2,000-4,999	15	--	15	23	53	15
5,000-9,999	1	--	10	8	19	5
10,000 and over	.3	--	7	1	8.3	2
TOTAL	115.3	70	52	118	355.3	100

[a] Include employers in commerce and industry and the professions.

[b] The discrepancy between Table 3, p.15 and Table 54 cannot be explained.

Source: "La Redistribution des Revenus au Liban," L'Economie Libanaise et le Progres Social (Beirut: Editions les Lettres Orientales, 1956), p. 193.

In the middle income group are included all persons having an income of between LL2,000 and LL10,000. This group represents about 20 per cent of the total active population. Within this group also, there are two sub-divisions--the lower middle class and the upper middle class. The former has a per capita income of between LL2,000 and LL5,000, and includes most government employees (8,000), employees of commerce and banks, and some landowners and industrial workers. The upper middle class, the income of which is between LL5,000 and LL10,000 includes primarily landowners with extensive holdings, the greater part of commercial or industrial enterprisers, and high-ranking government employees.

The wealthy group represents 2 per cent of the active population and has an annual income of over LL10,000 per capita. It includes primarily businessmen and industrialists.

According to information given by Mr. Gannage, some of which is embodied in Table 54, nearly 80 per cent of the economically active population receives less than LL2,000 per capita income. In the aggregate this large group receives about 22 per cent of the national product. On the other hand, 20 per cent of the economically active population receives about 77 per cent of the national product.

With such wide disparities in income distribution, the increase in money income resulting from development expenditures will not be distributed proportionately among the different classes of income recipients or economic groups. The projected distribution of the additional income is indicated in Table 55. The estimates are total expenditures broken into factor shares. The ratios used for allocating expenditures are those developed for the construction industry for 1950 by Dr. Albert Badre of

TABLE 55

EXPENDITURES ON THE DEVELOPMENT PROGRAM, BY TYPES OF LOCAL COST AND BY CONSTRUCTION YEAR

(Thousands of LL)

Type of Cost	Percentage of Total	1	2	3	4	5	6	7
Total expenditures	100	27,687	38,514	35,030	30,564	25,464	17,398	12,304
Total wages	46	12,736	17,716	16,114	14,059	11,713	8,003	5,660
Wages	(38)	10,521	14,635	13,311	11,614	9,676	6,611	4,676
Engineering services	(8)	2,215	3,081	2,802	2,445	2,037	1,392	984
Cost of materials	36	9,967	13,865	12,611	11,003	9,167	6,263	4,429
Profits of contractors	18	4,984	6,933	6,305	5,502	4,584	3,132	2,215

Source: Estimates derived from date presented in Table 33, p.132 based on local factor cost allocation in construction industry provided by Dr. Albert Badre's "National Income of Lebanon, 1950," Middle East Economic Papers, 1956 (Beirut: American University of Beirut, 1956), pp. 19-20.

the American University of Beirut.[1] Although the nature of the construction industry for which these estimates were made may differ from the projects under study, it is believed that these ratios represent a rough guide to the distribution of the additional income.

Although it is estimated that 46 per cent of total expenditures will be for wages, this is not likely to alter the present disparities of income distribution. It is estimated that about 18 per cent of expenditures are in the nature of profits. To these we can add the payments for materials, so that over half of total expenditures will accrue to the entrepreneural classes. Furthermore, to the extent that expenditures on the development projects give rise to induced demands for goods and services due to increases in income, it is the enterprisers again who will be in a position to profit.

A rapid increase in the incomes of the well-to-do will not in itself be necessarily "bad." It is this group which accounts for a large part of private savings. It is true that in their investment decisions the well-to-do have customarily shown a preference to invest in buildings and gold hoards. It may be, however, that the new expectations for profit will encourage them to re-channel their investment into the production of needed materials. In the final analysis, therefore, the distribution of the additional incomes from development expenditures may actually lead to increased saving and investment.

From the foregoing analysis, it seems certain that the national income will undoubtedly increase. It is now necessary to investigate whether this increase will be absorbed in higher factor and goods prices, or whether it will result in an increase in production.

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[1] Albert Badre, "National Income of Lebanon, 1950," Middle East Economic Papers, 1956 (Beirut: American University of Beirut, 1956), pp. 19-20.

In order to examine the issue closely, many factors must be taken into consideration--namely, the impact of the program on the levels of wages, consumption and savings, private investment, balance of payments, and prices.

Effects on wages

In an economy where labor is fully employed and well organized, an abrupt increase in the demand for labor is almost sure to set off a wage boost. This may be expected in the situation under consideration only to a limited extent. While skilled labor will be scarce, labor unions are weak[1] and unskilled labor is abundant.

A shortage of the required types of skilled labor at the prevailing wage level is the first obstacle which the development program may face. The immediate impact of the program on such skilled labor will be to absorb the presently unemployed. This source of supply is very likely to prove inadequate. The shortage of skilled labor, particularly in the categories of construction workers, mechanics, and industrial workers, is aggravated by the emigration of qualified people to the oil producing countries in the area: Saudi Arabia, Iraq, and Kuwait. Enough skilled labor, therefore, can be tapped only through bidding it away from other occupations or by importation.

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[1] ". . . unions are small, each confined to a single industry by law, and can exist only with subsidies from the Government which therefore closely controls their activities. Since Lebanon is in only the early stage of industrialization, the unions have not the numerical strength to withstand the reactionary trends among the oligarchi which controls the political machine." A. E. Mills, Economic Change in Lebanon," Middle East Economic Papers, 1956 (Beirut: American University of Beirut, 1956), p. 82.

It is reasonable to suppose that competition for the scarce supply of skilled labor would lead to a general rise in wages of such labor. There are, however, several factors which tend to mitigate this rise. The ineffectiveness of labor organizations is one. Some labor will be imported, thus relieving the shortage. But the importation of skilled labor will itself bring about wage increases, since Lebanon must compete with existing industries and with development programs in other countries of the area for the available supply. The most that can be expected from this source, therefore, is that the wage increase may be less than would otherwise occur. The shortage of skilled labor may also be relieved through the upgrading of some unskilled Lebanese workers. Under the supervision of skilled labor, they can rapidly acquire skills. Insofar as their training can be completed, this seems to offer the best prospect for eliminating the shortage of skilled labor. The time interval required for training, however, still means that wages of skilled workers are likely to advance. Other means of meeting the shortage of skilled workers would be an efficient recruitment program to reduce the immobility of some skilled labor in rural areas and the employment of such Palastinian refugees as are skilled. But in the final analysis, these efforts will not prevent a general increase in wages of skilled workers.

For professional occupations (engineers), it is mandatory to institute a recruiting program among Lebanese students abroad. Many of these students are available for employment. The Government, however, has not shown an interest in their services. This recruiting would be fairly easy and inexpensive if carried out by the Lebanese consulates and embassies abroad.

With respect to unskilled labor, the results are obvious. Besides the labor pool created by existing unemployment in the urban areas, it is possible to draw under-employed labor from rural areas without reducing total agricultural production. Also in the area of unskilled labor, the Palestinian refugees constitute a source of supply. It is believed that many of these can be absorbed into the economy. Nevertheless, as in the case of skilled labor, measures must be taken to overcome immobility. The possibility of the inadequacy of unskilled labor is very remote, but some advance in wage rates to overcome immobility may be necessary.

At any rate, one conclusion is definite. The level of employment will be raised significantly as a result of carrying out the development projects. Also, the total wage bill will be increased partly due to higher wages in the case of skilled labor and partly to an increase in the volume of employed labor.

Consumption and savings

The total volume of goods and services available to the economy depends partly on the productive capacity of Lebanon and partly on its ability to pay for imports. A large claim on these goods and services comes from individual and public expenditures for consumption. Only by diverting resources from consumption to investment can the development projects be carried out without excessive pressures on available resources. Such pressures can create an upward movement of prices and wages.

The distribution of total available supplies for 1953 is estimated in Table 56. Personal consumption expenditures absorbed about 75 per cent of the total, current government expenditures about

TABLE 56

ESTIMATES OF SUPPLIES AND THEIR DISPOSITION IN LEBANON, 1953

Disposition of Supplies	Value of Supplies (Millions of LL)	Percentage Distribution
Total available supplies	1,368	100
Consumption		
1. Personal	1,026	75
2. Government	96	7
Investment (Net)		
1. Private		
(a) Physical	123	9
(b) Gold and Foreign Exchange	55	4
2. Government		
(a) Physical	27	2
(b) Gold and Foreign Exchange	41	3

Source: Information secured personally from the International Bank for Reconstruction and Development.

7 per cent, and private net investment about 13 per cent of which 9 per cent was in the form of physical investment and the balance in gold and foreign exchange holdings. Public net investment, on the other hand, absorbed 5 per cent of available supplies, 2 per cent being in the form of physical investment, and the balance being in the form of gold and foreign exchange. The bulk of private physical investment went into "the seemingly bottomless pit of private construction, into which funds disappear every year at an extraordinary rate."[1]

The distribution pattern probably has not changed significantly since 1953. What is likely to happen to this distribution pattern during the period of construction? It has already been concluded that the pattern of income distribution will not be altered by the development program. Any effect on savings and consumption will result from changes in the way various income groups allocate their additional income to consumption and savings. For purposes of this analysis, two groups will be considered--the lower income groups and the higher income groups.

Two factors indicate that most of the increase in income accruing to the low income group will go to increase consumption and that very little of the additional income will augment savings. In the first place the standard of living of the majority of the labor force, particularly the unskilled labor, is below that desired. With the mobilization of the now unemployed and with the rise in wage rates, total personal income will increase and consumption expenditures will rise. In the second place, the tax system of Lebanon is heavily oriented towards indirect taxes. These will probably take more than the average of 13 per cent from the additional income of this group. To the extent this is true, the increase in consumption expenditures will be curtailed.

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[1] Edmund Asfour, "Industrial Development in Lebanon," Middle East Economic Papers, 1955 (Beirut: American University of Beirut, 1955), p. 4. Between 1948 and 1950 the number of buildings has increased at a rate of 6 per cent per year. Albert Badre, National Income of Lebanon, Monograph No. 7 (Beirut: July,1954), p. 6. (Mimeographed)

Conclusions regarding the allocation of the additional income between consumption and savings by the high income groups are more difficult to ascertain. Since the standard of living of this group is already above the subsistence level, and since it also provides a substantial amount of savings, a general observation, based on Keynes' "Fundamental Psychological Law" would lead one to expect an increase in positive savings to result, in addition to increased consumption expenditures.[1] If the nature of the tax system is also considered, it seems logical to expect a smaller proportion of the additional income of this group to be transferred to the Government than of the lower income groups. Consequently, there seems to be little basis for anticipating any appreciable change in the allocation of income between consumption and savings by the higher income groups. The increase in consumption expenditure will probably add more to the demand for luxuries (imports) and the increase in savings may provide funds to finance greater investment.

Demands for goods and services and private investment

The demands for goods and services generated by the development expenditures include not only those directly needed for the implementation of projects but also those that are induced as a result of the increase in incomes. Although an increase in the latter is no less certain to occur than the increase in the former, the extent of the increase and the impact on specific sectors of the economy is much more difficult to predict.

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[1] J. M. Keynes, The General Theory of Employment, Interest and Money (New York: Harcourt, Brace and Company, 1936), p. 96.

With respect to direct project demands, two problems are created. These are: (1) possible shortages of construction materials, particularly cement, and (2) scarcities of certain types of skilled labor. The second of these has already been discussed. The first may present problems of serious proportions.

Although the cement industry has expanded in recent years, due to rising demands, further expansion will be difficult to achieve in a short period of time. Furthermore, the process of expansion requires the importation of capital equipment. But even assuming that expansion can be accomplished fairly quickly, the demand for cement during the first two or three years of the construction period will undoubtedly be in excess of local production. The first effect of this new demand will be the complete cessation of cement exports. But, in view of the needs of the construction program, even a complete cessation of exports will still leave a shortage and make importation of cement inevitable.[1]

Concerning the induced demands due to rises in money income, several problems are also faced. But before these problems are analysed, an important question must be resolved. That is the question of the possibilities of meeting new demands for consumers' goods and services from local resources during the construction period. In other words, how will private investment be affected by the additional demands for local commodities and services?

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[1] *Supra*, Chapter V, p. 118.

To the extent that the increase in public expenditures on the creation of new capital goods is counterbalanced by a decrease in private capital expenditures, no pressures on local resources need develop. But there is no reason to believe that private investment will be proportionally reduced. In fact, the development expenditures, financed for the most part through bank credit, will probably induce competitive expenditures from the private sector, particularly for building construction. These increased expenditures will exert additional pressure on the supplies of cement and of skilled labor--the two areas where shortages are likely to result from the development program. They are also areas where inflationary tendencies already exist. It will be remembered that the wholesale price index of construction materials, including cement, increased by 15 per cent from 1954 to 1957.

The induced effects will not be limited to the construction industry. Although the economy may not be fully employed, it is inevitable that some diversion of resources from the production of consumer goods to the production of capital goods for the development projects will occur. This is particularly true in the case of skilled labor. In the absence of new and/or increased taxes, the new incomes will mean new demands for most goods, particularly foods and clothing.

The question arises as to the possibilities of meeting induced demands for goods and services from local production. With the exception of some industries--primarily foodstuffs, cement, and tobacco, which account for roughly 20 per cent of industrial employment--

excess industrial capacity is widespread. One would expect that production outside these three industries could increase in step with increasing demands. While there is no doubt that the production of some consumer goods can be stepped up, it would be erroneous to suppose that all, oreven a substantial part of these new demands can be met. Further expansion in production in most industries will probably be obstructed by the presence of critical bottlenecks which cannot be rectified in a short time. It would appear, therefore, that the supply of domestic consumer goods production is largely inelastic in the short-run.

The induced demands for more consumer goods are likely to cause larger imports. The local production of consumer goods depends to a large extent on the import of raw materials. To the extent that output increases, therefore, imports also increase. In addition, the demand for more consumer goods will be partly a demand for luxuries, which will also increase imports. This means added pressure on the balance of payments, accentuated by the possibility that food exports will be reduced due to increased local consumption.

Balance of payments

The discussion in the preceding sections leads to two general conclusions: that the implementation of the development program within the present context of the Lebanese economy will lead to (1) balance of payments problems and (2) price increases. The reasons for these conclusions will now be drawn together and summarized.

Pressure on the balance of payments will come from several sources: (1) foreign exchange requirements in excess of those which have been made available or which are likely to accrue to the Government during the construction period, (2) temporary reduction in goods for export, (3) increased demand for imports, and (4) remittances of imported skilled labor.

The foreign exchange requirements and possible ways of meeting these requirements have been discussed.[1] Even if these were the only changes in the demand for foreign exchange, they would probably exert pressure on the rate of exchange unfavorable to the financing of the project; exchange rates in Lebanon on other currencies would tend to rise. But it is not the only factor. The development project will also decrease some exports from Lebanon. The most specific of these are the reduction in cement and olive exports. Between them, they will probably result in a loss of foreign exchange earnings of from LL3 million to LL6 million a year. To what extent other exports will drop as a result of the increase in domestic consumption, investment, and prospective price increases is difficult to ascertain. It is reasonable to expect, however, that these will contribute to further foreign exchange losses.

In addition, the higher level of net national product will induce imports. To the extent that domestic investment expenditures increase, they will lead to an increase in capital goods imports. As domestic consumption expenditures rise, they will result in a demand for imports of consumer goods and also to an increase in imports of raw material with which to increase domestic production.

Finally, the recruiting of substantial numbers of skilled labors in foreign countries can be expected to increase the demand for foreign exchange. These laborers will probably leave dependents behind and find it necessary to send funds for their support. In addition some of them may wish to return home during the construction period and take their earnings with them.

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[1] _Supra_, Chapter IX, pp. 190-202.

It does not seem that the problems connected with the balance of payments should be dismissed too casually. Although Lebanon had a balance of payments surplus in each of the five years 1951-1955, and although this surplus ranged from LL18.9 million to LL57 million, it does not seem substantial enough to provide for all the demands which may be made against it. If it is not, then unless steps are taken promptly to deal with the balance of payments problems, it could seriously interfere with the efficient completion of the development program.

Levels of prices

Prices in Lebanon are affected by the prices of imports since price indexes include the prices of imported products. Because of this fact it has been necessary to postpone a consideration of the effects of development expenditures on price levels until full consideration has been given to the balance of payments.

The forces that are likely to exert an influence on the level of prices may be conveniently discussed under two headings--the internal forces and the external forces--although these two are necessarily interdependent, especially in the case of Lebanon.

With respect to the internal forces, it should be remembered that public development expenditures, financed mostly by bank credit, are aimed primarily at investment in social overhead capital. As such they will compete for the scarce factors, namely skilled labor and construction material. A rise in the wages of skilled labor should be expected along with an increase in the total wage bill. National income will undoubtedly increase. This will result in an increase in the demand for locally-produced goods and services.

The supply of agricultural production is extremely rigid in the short run (one year) and, where no easily cultivable land exists, is similarly rigid in the much longer run (until new irrigation projects are completed). Furthermore, since, with the exception of fruits and vegetables, shortages of locally-produced foodgrains exist, an increase in the demand for agricultural commodities obviously could not be satisfied from local sources. And to the extent that the consumption of fruits and vegetables is increased, a corresponding reduction in exports will occur along with the expected reduction of olive exports and possibly other food exports associated with the development of the Litani project.

As to industry, it is noticeable that several industrial firms are working at less than full capacity. As mentioned earlier, weak demand is one of the major obstacles in the way of industrial expansion. Although the limit of full industrial capacity has not been reached in some areas, utilization of full capacity will involve additional imports of raw materials which constitute a large percentage of total cost, assuming, of course, that all other problems of industry can be rectified.

The above discussion would suggest that prices of local goods will move in an upward direction. Even with the availability of surplus unskilled labor and some unused capacity, the production bottlenecks including the scarcity of some key factors, will undoubtedly contribute to an increase in prices. Unemployment in the Keynesian sense means not only unemployed labor but also appropriate surplus capacity in equipment and other complementary resources to go with it. Thus, financing projects by deficit methods under these conditions will give rise to an increase in physical output which will occur pari passu with the increase in money income. In the case of Lebanon, however, where at the inception of the development cycle, existing unemployment does not have the adequate complementary unemployed resources to go with it, the so-called multiplier will most likely work in purely monetary terms, resulting in rising prices rather than an increase in physical output.

It may be necessary at this point to make a slight digression. The magnitude of the multiplier is equal to the reciprocal of the summation of the leakages from marginal increase in the flow of income, namely the marginal propensity to save and the marginal propensity to import. The marginal propensity to import is believed to be very high in Lebanon as can be evidenced from import data. The level of savings are also high, even if allowance is made for investment financed from the high level of income from abroad.[1] Thus, these two factors, MPS and MPI, point to a large amount of leakage of purchasing power into imports and savings which could reduce the internal multiplier to probably somewhere slightly over unity. However, since government surpluses (a form of leakage) are not likely to be realized during the period of construction, the magnitude of the internal multiplier might be higher than indicated above. Also it must be remembered that about half of the development expenditures will accrue to the lower income groups where the MPS is likely to be nil. But even assuming a high leakage of increase in income into imports, the problem of increased prices arising from increased demand cannot be dismissed. The reasons for this will be stated below.

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[1] Yusif A. Sayigh, "Lebanon: Special Economic Problems Arising from a Special Structure," Middle East Economic Papers, 1957 (Beirut: American University of Beirut, 1957), p. 75.

A high marginal propensity to import and a deficiency of reserve capacity are complementary because the former may be interpreted to mean that the economy has no reserve output. This would mean an increase in money income would have to be met by an increase in imports--a strong possibility in trade-liberal Lebanon.

Because the availability of foreign exchange on the Beirut market is not inexhaustable, the first impact of increased imports will tend to lead to a rise in the foreign exchange rates. A rise in exchange rate will mean an increase in the local prices of imports destined for industry or for the consumer directly. This situation may encourage short-term investment in trading stock of local and of imported origin, and may also intensify the demand for gold and foreign exchange as a hedge against cheapening of the local currency and for speculative purposes. It is needless to point out that, should this situation develop, even if not severely, it could have serious effects on the balance of payments by discouraging the movements of capital into Lebanon. The Economic Research Institute of the American University of Beirut estimated capital flows into Lebanon at LL49 million in 1953, LL63 million in 1954, and LL80 million in 1955.[1] For the three year period, therefore, capital movements into Lebanon averaged about LL64 million. A twenty-five per cent reduction in capital inflows would have serious implications for the balance of payments. A fifty per cent reduction in their contribution would probably wipe out all the country's balance of payments surplus.

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[1] Banque Libanaise pour le Commerce, Economic Review, No. 36 (Beirut: June ,1957), p. 2.

Thus, parallel to increase in prices runs a weakening of the external value of the currency which may interfere with the completion of the projects and with the satisfactory performance of the economy.

While the foregoing analysis points to an increasing price level, certain qualifications may be in order. First, the magnitude and the direction of development expenditures in relation to total economic activity must be considered. Specifically, it is estimated that annual outlays for the projects are equal to about 4 per cent of the national product. Thus, while the projects themselves may be inflationary, their relative importance to the total economy may sharply limit the extent of the upward pressure on the price level. In addition, it may be noted that while the wages of skilled labor are expected to increase, they will probably have limited effects on the general level of wages. This conclusion rests on the assumption that skilled workers, due to the nature of designs of various projects, probably constitute a small portion of total labor requirements and hence a small portion of the total wage bill. Hence, inflationary pressure from this sector might be smaller than otherwise indicated.

Another area in which prices are expected to increase is agricultural products. It is interesting to note that between the years 1953-1956 the wholesale prices of foodstuffs remained nearly the same; and it may be recalled that 1953-1956 was also a period of considerable expansion in the national product. This would raise an interesting question concerning the supply elasticity of farm products. Apparently in the past the food supply has been able to adjust to higher demand without a noticeable increase in prices. On the basis of this evidence, one might conclude that further expansion of the economy is not likely to generate price increases of foodstuffs. However, it is also to be noted that much of the past expansion in food supply (grains) has originated in imports. During the period of construction, however, the inflow of agricultural imports may be had only at a higher price in terms of foreign exchange because our previous analysis has shown that the balance of payments will come under considerable pressure. Hence, a source of stability is likely to be eliminated.

In appraising the impact of the balance of payments pressure on the level of prices, one further factor needs to be considered. The high correlation between the movements of exchange rates and the price level is illustrated in Table 57. One exception to this predominently high correlation between price levels and exchange rates would be the year 1957. This deviation can be attributed to three factors: (1) the lifting of rent controls on luxury-type housing which increased rentals; (2) the increased demand for construction materials in 1956 by the public sector for purposes of reconstruction of earthquake-devastated areas; and (3) the drought conditions in Syria. Syria normally supplies Lebanon with most of its cereal requirements. The last factor meant that,despite the drop in the exchange rate between the Syrian and the Lebanese Pound in favor of the latter, Lebanon had to rely on imports from other areas with the added transport cost.

TABLE 57

INDEXES OF WHOLESALE PRICES, COST OF LIVING, AND EXCHANGE SELLING RATES IN LEBANON, 1950-1957

1950 = 100

Type of Index	1951	1952	1953	1954	1955	1956	1957
Wholesale prices	126	114	103	95	96	101	105
Cost of living	108	108	101	96	98	104	112
Exchange selling rates[a]							
U. S. Dollar	108	105	99	93	93	93	92
Pound Sterling	104	103	103	98	99	98	97

[a] LL per unit of currency.

Source: Chapter II, Tables 41 and 42, p. 159; and Chapter III, Table 24, p. 78.

In summary, while the projects themselves may not generate serious inflationary pressures in terms of the total economy, these pressures must be added to a number of other inflationary factors such as (1) the elimination of government surpluses, (2) the concurrent demands generated by the public sector in terms of ever-expanding economic activities of the Government within the Ordinary Budget, and (3) the concurrent demands by the private sector. Thus, the sum total of these forces might have serious implications for the economy.

CHAPTER XI

POLICY QUESTIONS

Without a positive economic policy the implementation of the development program will probably lead to inflationary and balance of payments pressures. The importance of fulfilling the aims of the development projects--namely, the provision of "social overhead capital" for further economic expansion and at the same time raising the standards of living of the people, within a framework of financial stability--cannot be overemphasized.

Financial stability has both internal and external implications. Internal financial stability is taken to mean the absence of a substantial change in the value of the Lebanese Pound over the construction period. Externally, financial stability would be identified with a reasonable degree of stability in the exchange rates. This would be particularly applicable in the case of Lebanon since exchange controls are absent, except to the extent that the Exchange Stabilization Fund has been active in recent years in supporting the value of the dollar in terms of the Lebanese Pound.

If inflationary and balance of payments problems are to be kept to a minimum, the Government must follow a positive economic plan. Such a plan would include monetary policy, fiscal policy, and foreign economic policy.

Monetary Policy

Monetary policy for purposes of this chapter is taken to mean the use of discount rate, open market operations, and reserve requirements by the monetary authorities to influence the effective volume and/or use of money and credit. As traditionally applied in other countries, there is little promise that these will prove effective in Lebanon in counteracting the inflationary tendencies generated by the development projects. It might appear that the rediscount rate would be an effective instrument of monetary policy in view of the absence of a diversified money market to which investors can turn for financing. Several factors, however, explain its ineffectiveness. The first is the undeveloped nature of the money market. In its present state, the market is not sensitive to changes designed to influence interest rates and hence would be little affected by changes in the discount rate. Secondly, the very nature of the BSL reduces the effectiveness of the discount policy. Its dualistic nature, vis-a-vis other private banks, as a central bank and as a strong competitor, reduces the willingness of the other banks to borrow from the BSL. Furthermore, the high degree of liquidity maintained by the private banks has made them insensitive to discount rate changes. The third factor, as already stated, is the lack of legislation to regulate the organization and operations of private banks. Private banks go about their business as they choose. The non-existence of such legislation makes it very difficult for the authorities to restrict or encourage lending activities by banks.

In order for open market operations to be effective, there must be a well organized market for buying and selling debt instruments. Such a market does not exist in Lebanon. Until one is developed, the BSL, or any central bank, will find it difficult to make the rediscount rate effective, or to influence the availability and cost of credit through open market operations.

The use of variable legal reserve requirements is not workable under existing conditions. The BSL does not now possess the authority to vary reserve requirements, nor are the banks required to maintain any fixed amount of legal reserves. While it would be possible to pass such laws, it probably would not be feasible. As long as the BSL competes with the private banks for business, and as long as it is privately owned by French interests, it is not politically advisable to require the private banks to maintain reserves with the BSL.

This analysis leads to the conclusion that the traditional general instruments of monetary policy, if applied at the present time in Lebanon, would be ineffective. It implies that for monetary policy to contribute toward combatting the undesirable effects of the development program, some monetary and banking reforms are necessary.

Mr. F. Keesing of the International Monetary Fund was invited to Lebanon by the Government to make a thorough study of banking and monetary problems.[1] Unfortunately, only a partial summary of this important work is available. Among other things Mr. Keesing has this to say:

> According to existing legislation, neither the Government nor the Bank of Syria and Lebanon [BSL] supervise the development of the banking and credit situation. The Government censor who was appointed according to the 1939 agreement is forbidden from interfering with any business of the Bank of Syria and Lebanon save that of note issue. This supervision of note issue does not carry economic significance. The Bank of Syria and Lebanon is not necessarily motivated by the public interest in

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[1] F. Keesing, "Report on the Monetary and Banking System of Lebanon," in Republic of Lebanon, Planning and Development Board, Second Annual Report (Beirut: 1956), pp. 22-28. (The report is reproduced in Arabic.)

> conducting its business affairs. True, no serious mistakes have occurred so far but there is no guarantee that this will continue. Undesirable things may happen, and if they do, very little if anything can be done about them.[1]

Mr. Keesing's report then lays down certain pre-requisites of monetary policy. Two stages are recommended in this respect. The first stage includes the collection and analysis of statistical data on all phases of the Lebanese economy. Concurrent with this recommendation is the necessity to devise monetary legislation giving certain rules to banking transactions. These include the legal definition of what constitutes a bank, minimum capital, minimum reserves out of net profits, operations prohibited by banks, etc. The report advised the Lebanese Government to profit from Syrian legislation relative to its own new central banking system.

The second stage, which would not be practical before the passage of one or two years after the first stage has been implemented, includes the creation of a Council on Money and Credit or a department within the Ministry of Finance to formulate monetary policy. Also included in the second stage are: (1) devising liquidity rules for banks; (2) defining the authority of the new Council on Money and Credit; and (3) revising the 1939 agreement with the Bank of Syria and Lebanon so as to separate its private from its public functions. It is recommended by Mr. Keesing that the first two of these measures be formulated in the light of the newly developed statistical information resulting from implementation of the proposed reforms.

Concerning a re-arrangement of the present structure of the BSL, the report points out the unsatisfactory state of affairs now existing, which arises from the 1939 convention. It is especially critical of the dual nature of the BSL. To remedy this situation, the report advises that

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[1] *Ibid.*, p. 22.

> Until the Government is free to establish a central bank, the BSL be re-organized so as to incorporate into its present Issue Department all business that it carries out in connection with its public functions, leaving in the Banking Department only its private business. The re-organized Issue Department would then contain not only the note issue and its cover, but also the Government deposits, the deposits of private banks, and all elements that are eligible for currency cover. The key to this re-organization is that the Government would have the right to influence the functions of the new Issue Department which would have the characteristics of a central bank. The BSL's Banking Department would have access to the facilities of the re-organized Issue Department on the same basis as other private banks. Such re-organization, if it can be worked out, should take place only after the steps outlined above have been taken; namely, the collection of statistical data on banking and the creation of a Council on Currency and Credit.[1]

Although the recommendations made in the Keesing's Report are largely in the nature of reforms which may appear to have little or no bearing on the development program, they could lay the foundation for a positive monetary policy. While the implementation of the Keesing recommendation is more of a long-run measure, if the Governments acts with the speed recommended, it is reasonable to expect that some instruments of monetary policy can be used to stem inflationary pressures growing out of the development program.

It is improbable, however, that the program will be enacted in the near future. In the first place, judging from past performances with legislation, it does not appear likely that the Government will take swift action along the lines suggested by the Keesing report. Furthermore, there are certain legal obstacles facing the proposed revision of the 1939 agreement between the Government and the BSL. In its monetary agreement with France in 1948 the Government specifically agreed not to change the concessions obtained by French companies during the mandate, unless agreed to by all the parties concerned. The BSL, it will be recalled, is a French institution, the concession of which was granted during the mandate and is not due to expire before 1964. It is doubtful that the BSL would be willing to sacrifice the advantages enjoyed under its present structure. While a unilateral action by the Government may be within its legal prerogative, such a step would be a breach of faith and would undoubtedly have some adverse effects on present and future foreign investment. The Government should withdraw the concession when it expires in 1964. But the present policy for dealing with concessionary companies, particularly when bound by international agreement, leaves the Government little or no control over the policies of the BSL.

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[1] _Ibid_., p. 23.

The Government is confronted with the necessity of devising some alternative measures to implement monetary policy, even in the absence of desired reforms, or of abandoning the use of monetary controls to combat the inflationary pressure and to help ease the balance of payments problem. The success of the development program and the future development of the Lebanese economy are so dependent on keeping these undesirable developments to a minimum, that no effort should be neglected which will help in this respect.

It may be desirable, therefore, to investigate the possibility of enacting legislation which will contribute to the solution of several problems growing out of the development program. It will be recalled that the inflationary pressures of the development programs largely stem from the sources of funds used to meet the domestic financial requirements. These were the sale of securities to the private banking system and the activation of the balances which the Reserve Fund now keeps on deposit with the BSL. It was concluded that the activation of these balances would result in an increase in the note issue and the cash reserve position of the private banks. It was also concluded that the increase in income would tend to increase private demand for bank credit. Any measures to combat inflationary pressures must deal with these specific developments and limit the total expansion of the money supply.

It has already been suggested that the funds needed to finance the development program be partly obtained by requiring the banks to hold government securities. This will provide the Government with funds needed to finance the development program, but in and of itself it will not prevent an expansion of the money supply unless some measure is found to force the banks to contract credit which has been extended to the private sector of the economy. It will be desirable, however, to permit an increase in the total money supply to meet the needs of expanding trade as factors of production become more nearly fully employed and total production of goods increase.

In order to accomplish these purposes, it is suggested that reserve requirements be established for all banks. The exact composition of the reserve and the size of the requirements cannot be specified on the basis of data available to the writer. These are details, however, which could be settled without too much difficulty. The principles of the provision can be outlined. The reserve should be composed of cash and government securities. The size of the total and/or of each component should be related to total demand (or demand and time) deposits of the banks. In this way, the banks would be required to purchase government securities and their ability to expand or maintain total deposits would be dependent on their ability to acquire such securities as well as cash reserves.

An illustration of the functioning of this requirement may prove helpful. At the end of 1957, total private demand deposits were LL447 million. If the security reserve provision were set at 20 per cent, this would require the purchase of about LL89 million of government securities. If the purchase of these securities were made through the creation of deposits, then additional securities would need to be purchased. The total expansion of deposits will, therefore, be dependent on the availability of government securities.

In addition, it may be desirable to require the banks to maintain a cash reserve against deposit liabilities. In view of the present composition of the banking system it would probably be desirable if this were specified as cash in vault. Since data are not available to the writer as to cash now held by the banks, it is difficult to specify any appropriate ratio. The ratio should be high enough, however, to limit significantly total deposit expansion. The actual amount of deposit expansion desired will be substantially less than that needed to finance the development program. The ratio would then need to be low enough to permit some increase in total deposits, but high enough to force the banking system to contract the amount of loans now outstanding to the private sector of the economy.

In addition to limiting the expansion of bank deposits and providing for the sale of government securities, this requirement could also contribute to the development of a money market in Lebanon. It would be necessary for individual banks to alter their ownership of government securities as their deposit liabilities rise or fall. This they could do through the purchase and sale of these securities among themselves or with other potential owners. Gradually, in this way, a market not only for government securities but other credit instruments might evolve to the benefit of the total economy.

For this proposal to be successful in helping control the inflationary forces, two things are essential. In the first place, the amount of government securities outstanding must be limited in order to limit the total money supply. In the second place, the cash reserves of the banking system must be limited. This is especially true if the reserve requirement is stated as cash and government securities. Unless the provisions designed to limit the money supply are restrictive, then monetary measures to control inflation will be ineffective.

Limitation of the note issue, and hence the cash reserve of the banks, should not be too difficult, provided the Government has the will to achieve it. As indicated in our discussion of the foreign exchange requirements, some of the excess gold cover will be withdrawn to finance the development projects. But it will be necessary to restrict the increase in note issue to less than the remaining cover could support. It should be possible to do this under existing provisions of law, or with only slight modifications of these provisions. The Government, through its appointed censor, should do more than merely enforce provisions of the law with respect to note cover. The amount issued should be limited with respect to the needs of the economy for total money supply and stability of prices. Such a policy would merely separate in practice the issue and banking departments of the BSL and would not alter in any other way the agreement between the Government of Lebanon and the Bank.

If it is considered undesirable to place this responsibility on the censor, then that section of the Keesing report recommending a Monetary Council could be implemented. It is sufficiently evident, in the opinion of the writer, that the inflationary pressures which are inherent in the development program are of such a magnitude that, unless combatted, they will seriously threaten the future economic development of Lebanon. To cope with them, prompt enactment and rigorous enforcement of monetary provisions similar to those outlined will be essential. But even if this program is enacted, it does not obviate the necessity for using other means to mitigate the undesirable effects of the development program.

Tax Policy

Tax policy within the contex of this study includes the following features: (1) restrictive effects on consumption by absorbing part of the new purchasing power; and (2) restrictive effects on certain types of production such as private building, which competes with the development projects for resources. To the extent that the above aims are accomplished, public revenues are also realized. With these revenues it is possible to minimize the reliance on bank credit for financing of projects. It is clear, of course, that financing through bank credit, even though the annual requirements may be small, has inflationary effect whereas a recourse to taxation does not.

Levels of taxation and financial stability

It was pointed out elsewhere that taxes absorb about 13 per cent of national income.[1] This is low when compared to the percentage of income taken by taxes in many of the more developed countries.[2] The increase in the volume of tax receipts during the period of construction will be considerable. But in order to minimize the inflationary effects of the development program, it is desirable to increase tax receipts further, either by increasing existing tax rates, or by imposing new levies, or both.

A wise tax policy designed to counteract inflationary tendencies would not be one that would cause the per capita consumption of the lower income groups to fall below present levels. The policy would, however, have to limit the increase in incomes of all recipients from resulting in a corresponding increase in private expenditure. If the tendency to increase private expenditures is not to become a reality, then the appropriate policy will require an increased levy of taxes. Whether the prevailing conditions in Lebanon permit a substantial increase in taxes during the construction period constitutes a very interesting question; on the answer depends the ability of the Government to absorb income that would otherwise be spent on consumption, gold hoards, and building construction.

Direct taxes.--A progressive direct tax supplies the fiscal system with flexibility in revenues and thus brings a closer correlation between variations in the size of national income and changes in government tax receipts. A progressive tax system can, therefore, be considered an influential tool to combat inflationary forces. What is the position of direct taxes in Lebanon?

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[1] Supra., p. 182.

[2] The percentage of tax receipts to national income at factor cost and current prices was as follows in some countries in 1954: Canada, 27; Sweden, 32; United States, 27; United Kingdom, 32; and Israel, 20. United Nations, Statistics of National Income and Expenditures (New York: 1957), pp. 44, 138, 237, 255, and 264.

The ratio of direct taxes to total ordinary budget revenues is only about 16 per cent. The percentage becomes even lower if we take into consideration revenues of independent budgets which are mainly derived from indirect taxes in the form of excises and fees. The relatively small and unchanging return from direct taxes in Lebanon is due mainly to political and administrative factors. The wealthy class is identical with the power groups which control legislative action. Naturally, these groups do not wish to subject themselves to a progressive type of tax. Some income sources are only lightly subjected to progressive direct taxation. This applies particulerly to the tax on agricultural income and in some measure to taxes on income from rentals. These taxes will be discussed shortly.

Contrery to the type of direct taxes that prevails in most advanced countries, which generelly epplies a uniform rete irrespective of the source of income, the income tax retes in Lebanon do not apply with equal progressivity on all sources of income. Rates in some cases are more mildly progressive than in others. For example, the income tax lew of 1944 established three categories of taxable income, each category being taxed at different rates. The three categories of income under the law of 1944 ere as follows:[1]

1. Net profits (after deducting operating expenses and personal exemptions) of industrial and commercial enterprises, handicrafts, and professions, whether received by real or legal persons, are taxed at rates ranging from 5 per cent to 42 per cent for "commercial"

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[1] Ministry of Finance, Direct Taxes, The Income Tax of December 4, 1944 (Beirut: Sader Press, 1955). Arabic.

enterprises, and from 4 per cent to 37 per cent for non-commercial. In addition, a surtax of 10 per cent of the income tax is levied by the government for municipalities.[1] The personal exemption is LL1,500 for a single person, LL2,400 for a married person, and LL3,000 for married persons with children.[2]

2. Wages, salaries, pensions, life annuities, etc., are taxed at rates which range from 2 per cent on the taxable part of net annual incomes up to LL4,800 to 10 per cent on that of taxable incomes over LL48,000.[3]

3. The gross annual return from intangible capital is subject to a flat rate of 10 per cent. Income taxed at this rate includes dividends on stock of Lebanese companies (except when profits of such companies are taxed under item 1); dividends from stock of foreign companies; interest on bank deposits, loans, mortgages, etc.; and lottery prizes.[4]

These taxes are discriminatory in the sense that they tax individuals with equal income at different rates. They are also discriminatory in the sense that they encourage the flow of savings into certain investments and not into others. In summary, the 1944 income tax law applies only mildly progressive rates in comparison with rates applied in other Middle East countries. This opinion is shared by many students of public finance in Lebanon.[5]

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[1] Ibid., Articles 28 and 29, pp. 59-60.

[2] Ibid., Article 27, p. 58.

[3] Ibid., Article 52, p. 67.

[4] Ibid., Article 61, pp. 69-70.

[5] See Gabriel Menassa, L'Economie Libanaise et le Reform de l'Etat (Beirut: Imprerie Catholique, 1949), p. 69.

Taxes are levied separately on built-up property and on income from agricultural land. The tax on built-up property was established on June 24, 1943, and amounts to one-twelfth of the annual gross rental value of all residential buildings used for commercial or industrial purposes the rental value of which exceeds LL30. To this is added a surtax for municipalities, not to exceed 3 per cent of the rental value. Also taxed are non-agricultural lands used for commercial or industrial purposes to which the surtax is also applied. The tax is collected from the owner of the property whether he is occupying it or not.[1]

Although collections from the tax on built-up property doubled between 1952 and 1956 (largely an indication of the high rate of construction in recent years) the percentage of this tax represents less than 6 per cent of income originating in the real estate sector. This is especially low since rental income accrues mostly to the higher income groups.[2] According to the Chairman of the Parliamentary Finance Committee, taxes from this source would certainly yield a much higher revenue if an effective application of even the present rates were enforced.[3]

Tax rates on property in Lebanon should be progressive. This statement is made in view of the fact that the inequality in wealth surpasses that in incomes. Furthermore, the very manner in which property is held, and the underlying speculative motives, hamper economic progress. The bulk of private investment as can be seen in Table 3, page 15, is in real estate. Insofar as this investment adds to the facilities afforded the tourists industry, the investment can be regarded as both productive and desirable. However, as was seen in Chapter II, the investment in real estate catering to the tourist industry is small compared with total investment in private construction.

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[1] Ministry of Finance, Direct Taxes, Tax on Built-up Property of June 24, 1943 (Beirut: Sader Press, 1955), pp. 1-12. Arabic.

[2] Albert Badre, "Le Revenu National au Liban," L'Economie Libanaise et le Progres Social (Beirut: Editions les Lettres Orientales, 1956), p. 23.

[3] Parliamentary Reports, 1955 (Beirut: 1955), p. 31. Arabic.

The building tax can be made to embody properly a discriminatory element, so that luxury-type houses are taxed at a higher rate than the houses of the poor and buildings used by businesses. This can be attained by imposing a progressive tax on houses which increases with the house rent whether the house is actually rented or whether it is occupied by the owner. In commenting on the tax on built-up property, the Parliamentary Finance Committee said:

> The tax on built-up property has a flat rate of one-twelfth of the rental value plus 3 per cent of the rental value for the municipality. Aside from the serious problem of evading such a tax, it is not fair for small landlords to pay 11.33 per cent on rent on LL1,000 and for big landlords to pay the same percentage on LL100,000.[1]

Tax receipts from agricultural land are now insignificant, being less than one-half of 1 per cent of total agricultural income.[2] All tax on agricultural income is levied on an estimated basis. The problems connected with this tax illustrate clearly the influence of the land-owning politicians who stand to lose by an imposition of higher rates. In 1951, Lebanon did enact a tax law on land that embodies mildly progressive rates on incomes derived from agricultural land. The rates vary between 2 per cent of net annual income up to LL5,000 to 35 per cent of net income over LL200,000.[1] The personal exemptions are on the same scale as those of the income tax discussed above. The new land tax was to have become effective on January 1, 1953. Up to this time, however, it remains ineffective as can be ascertained from figures on the revenue of land tax. These were stated at (in thousands) LL567 in 1952 and LL583 in 1957. Measures should be taken to make this new tax law effective immediately.

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[1] Parliamentary Reports, 1953 (Beirut: 1953), pp. 401-402.

[2] Cf. Table 4, p. 19, and Table 44, p. 167.

We can conclude from this consideration of direct taxes that they will not contribute substantially to preventing price increases nor balance of payments problems. They are imposed on a relatively small group of the population and even on this group the burden is low. Furthermore, since the rates tend to favor investment in real estate, mortgages, etc., they tend to encourage private investment which competes with the development program for resources. In view of these conclusions, it seems logical to consider how direct taxes may contribute to the alleviation of problems resulting from the development program.

What reforms are necessary in order that the direct tax may become a more effective instrument of fiscal policy? Can these reforms be effected during the period of reconstruction?

Suggestions for reforms have been made several times. In expressing its general tax policy, the Parliamentary Finance Committee had this to say:

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[1] Ministry of Finance, Direct Taxes, Land Tax of January 20, 1951 (Beirut: Sader Press, 1955), Article 38, p. 23. Arabic.

> It is necessary to point out that in order to arrive at a more equitable tax structure, we must apply a progressive rate to the whole of the income of the taxpayer (commercial, agricultural, and industrial) and not on each income separately. This. . . is one of the most important reforms which must be adopted in order to arrive at a good tax system in Lebanon. We hope that the financial administration will study the principles of unitary progressive tax /italics mine/ in order that it may be implemented in the near future.[1]

The First Annual Economic Conference held in Beirut, May 4-7, 1955, also recommended that the income tax laws be amended in favor of a progressive unified rate applicable to all income regardless of source.[2]

Administrative reforms should also be instituted. Without the introduction of efficient administrative machinery for the assessment and collection of taxes, unification of taxable income and the application of progressive rates will probably not result in an appreciable increase in revenues. As a first step, it is necessary to recruit competent personnel. There are many Palestinians in Lebanon who are experienced in income tax administration. These should be called upon. There are also many Lebanese students being trained abroad. They can be attracted to these administrative tasks if offered salaries worthy of their training.

Although the attitude of the taxpayers cannot be changed overnight, improved administration, together with the strict and impartial punishment for tax fraud, can be expected, in time, to induce voluntary compliance. Methods of arbitrary assessment of income should be done away with. The Ministry of Finance should prepare and distribute simplified income tax forms, and every effort should be made to increase the proportion of cases assessed on the basis of systematic records.

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[1] Republic of Lebanon, Parliamentary Reports, 1953 (Beirut: 1953), p. 403. Arabic.

[2] Proceedings of the First Annual Economic Conference, 1955 (Beirut: 1955), n.p. Arabic.

Concurrent with these recommendations, it is necessary to make some observations concerning the present income tax law as it applies to businesses. These observations are believed to have direct bearing on the development program. At present, joint stock companies, partnerships, and corporations are taxed at the same rate as individuals. In the case of partnerships, however, personal exemptions are allowed.[1] Lebanon has come forward with liberal tax laws on newly established businesses providing they are certified for tax exemption by the Planning and Development Board. In order to qualify for this certification, businesses must fulfill the following conditions: the enterprise is unlike any already in existence in Lebanon and will contribute to an expansion in the national income; capital invested exceeds LL1 million; and the annual wages paid to Lebanese employees exceed LL100,000. The exemption from income tax is for a period of six years. Many new enterprises have already received such exemptions.

The newly-created industries will in the long run materially strengthen the economic base. To the extent that these industries are financed from abroad, the supply of foreign exchange is enhanced. Conversely, if the newly-created industries are financed internally, they will initially make more payments abroad than they realize in savings of foreign exchange resulting from import substitution. This statement is made in view of the fact that the establishment of industry requires heavy imports of both equipment and raw materials. Further tax exemptions should, therefore, be granted only in clearly exceptional cases.

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[1] Ministry of Finance, Direct Taxes, The Income Tax of December 4, 1944 (Beirut: Sader Press, 1955), p. 58. Arabic.

Whether the above reforms can be achieved within a short period of time will depend on the willingness of the Government and the people to assume their respective burdens for a more successful development program. The Government should move forward with these reforms regardless of the pressures exerted on it to the contrary. If it does, then higher progressive tax rates should result in decreasing total private demand for goods and services. Some of this will undoubtedly be in the nature of consumption expenditures. Some of it will be in the nature of private investment expenditures, especially in those sectors which lose their preferred tax treatment. It may even discourage the accumulation of foreign exchange by private interests and the purchase of gold.

Reforms, however, even when undertaken with utmost speed and under ideal conditions may require a considerable period of time before they can become fully effective. Consequently, the results from these reforms may not materialize during the period of construction. Widespread resistance and evasion of the direct taxes combined with sluggish legislation seem to shift the burden more and more to the field of indirect taxes. It is appropriate, therefore, to examine the field of indirect taxation to see whether this can help achieve the aims of fiscal policy as outlined.

Indirect taxes.--Indirect taxes in Lebanon make up about 60 per cent of ordinary budget revenues. If we take the additional excise taxes levied by the independent budgets of the central government and by municipalities, it becomes clear that the percentage of tax revenue taken in the form of indirect taxes is even greater.

By and large, the indirect tax is primarily designed to obtain enough revenue to meet government expenditures and leave a surplus to build up the reserve fund. In recent years, however, it has been questioned whether indirect taxes for the sake of revenue alone fit into the country's economic goals and desires. Accordingly, some manipulation of the import tax has taken place to give a degree of protection to industry and to encourage agriculture.[1]

Indirect taxes can be made a powerful instrument of economic policy in exercising control of consumption and production of certain commodities, at the same time that they supplement the financial needs of the Government. This is all the more important since, as was shown above, direct taxes as a tool of fiscal policy are likely to gain in importance only over a longer period of time. During the period of lag, means a lessening the inflationary effects of development are necessary. At the same time the indirect tax will provide revenues and lessen Government reliance on bank credit for project financing.

The possibility exists of manipulating indirect taxes to achieve the aims of fiscal policy stated earlier without a substantial violation of the basic principle of not lowering the present levels of consumption of lower income groups. In order for direct taxes to comply with this objective, they must be able to increase total revenues without decreasing total consumption below present levels. Furthermore, it is necessary that the additional taxes be derived to a greater extent from the higher income groups than from the lower income groups. Indirect taxes do take on some characteristics of a progressive tax when basic commodities are taxed at a moderate rate while luxury goods are taxed at higher rates.

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[1] *Supra*, Chap. III, p. 81.

Fortunately, the import duties levied by Lebanon tend to comply with these necessary characteristics. Since luxury imports are taxed at higher rates than necessities, the government's revenues will increase as these imports expand. It is also possible to increase the total revenue derived from existing duties without changing current tax rates. This can be done by assessing import duties at the market instead of the par rate of exchange. It is believed that this method will absorb between LL10 million and LL14 million of purchasing power annually.

It will be recalled that, except for the Syrian Pound which is sold at a discount in the free market from its official rate, the official rate of exchange for other currencies is about 30 per cent lower than the free market rata. Importers pay for imports by securing foreign currencies on the free market. Information on the differentials that exist between the free and official rates of exchange for the many currencies involved is not available. It is believed, however, that a comparison of the unadjusted and the adjusted value of imports, will serve to establish the differentials between the two methods of valuation.[1]

Data on imports (adjusted and unadjusted) as well as on receipts from import duties, for the years 1952-1956, are presented in Table 58. The average unadjusted value of imports for this period was LL456 million

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[1] Supra, Chap. III, pp. 60,77.

TABLE 58

OFFICIAL AND ADJUSTED VALUE OF IMPORTS AND CUSTOMS RECEIPTS, 1952-1956

(Millions of LL)

Category	1952	1953	1954	1955	1956	Average[a] 1952-1956	Average[b] 1954-1956
Official value of imports[c]	347	362	484	527	561	456	524
Adjusted value of imports[d]	401	373	522	684	730	542	645
Customs receipts[e]	36.7	45.7	55.5	67.6	71.9	55	65

[a] Average adjusted (542) as a proportion of average official (456) is 19 per cent.

[b] Average adjusted (645) as a proportion of average official (524) is 23 per cent.

Source: [c] *Bulletin Statistique Trimestriel*, VII (Quatrieme Trimestre, 1956), 3.
[d] Chapter III, Table 15, p. 61.
[e] Chapter VII, Table 44, p. 167.

while the average adjusted value amounted to LL542 million for the same period. The percentage differentials between these two averages amounted to 19 per cent. If the Government should levy tariffs on the basis of adjusted value of imports, it would mean that the average tax receipts for the period would increase from LL55 million to LL65 million--an increase of LL10 million. However, if we take as our standard the years 1954-1956, we find that the price differential between the average adjusted and the average unadjusted value of imports to be equal to 23 per cent. Following this same method of calculation, average import duties would then be increased by LL14 million annually.

It can be concluded that the burden of customs receipts to the official value of imports is lighter than it appears. Thus, in 1956 customs receipts were equivalent to 12.8 per cent of the total official value of imports. In fact, however, these receipts were equivalent to only 9.8 per cent of the real free market value of imports.

Elasticities of demand have been ignored in calculating the percentage increase in tariffs based on free, instead of official value of imports. It is possible that this increase in tariffs will have some effects in terms of lessening imports. But it has already been established that the propensity to import is very high in Lebanon. This may be interpreted to mean that the bulk of Lebanese imports may, in general, be relatively price-inelastic. In view of the fact that the country is greatly dependent on imports and the direct and indirect demands generated by the development expenditures will make the country more dependent on imports, application of the free rate in the valuation of imports, and hence levying the tax on the basis of this valuation, will result in an increase in revenue.

Aside from the realization of revenue, using the real value of imports in levying tariffs has the advantage of providing a true picture of the import sector and hence will eliminate the necessity of adjusting the value of imports. This proposal has two other major advantages. In the first place, it can be put into effect in a relatively short period of time. Furthermore, it does not present administrative problems. Lebanon has had considerable experience with such a tax and it is believed that the current import taxes are being administered effectively.

Since food grains are entered duty-free and some materials and machinery intended for use in industry and agriculture bear very low rates, assessing import duties at the market instead of at the par rate of exchange would not encounter: (1) the adverse effects on low income groups as a result of the higher import tax or (2) opposition by industrial and agricultural enterprises because of their heavy reliance on imports of raw materials and machinery. On the other hand, all other imports, including household appliances, cars, expensive textiles, fancy foods and even meats, bear heavy import duties. These items are consumed for the most part by the well-to-do residents. The demand for the luxury-type goods tends to be relatively price-inelastic. Naturally, then, the assessment of imports on the basis of free rates will bear more heavily on the well-to-do residents and may serve as a substitute for the income tax during the period of necessarily slow development of such a tax. To the extent that application of free rates in calculating the import tax places a heavy burden on lower income groups, it may be said that this is inevitable during the period of construction.

The effective increase in import duties may have other effects. Since the items which bear the higher rates are luxury items, and since the higher taxes tend to be added to the price, tourists will probably find a vacation in Lebanon more expensive. If these higher costs are accompanied by inferior goods, then the tourist trade and foreign exchange earnings may be adversely affected.

On the other hand, the higher effective rates may reduce imports. These may be reduced because of smaller demands for the item at higher prices, and also because the importer shifts to domestic sources of supply. In either instance, there will be a smaller demand for foreign exchange and hence the pressure on the balance of payments will be reduced.

The increase in import duties may also have a bearing on the domestic price level. In the first place, there will be a tendency for prices of imported goods to rise. To the extent that these are raw materials or necessities, the increase in price may have further repercussion throughout the economy. Since many of these goods are now imported duty free, or at very low rates, this effect will be kept at a minimum. To the extent that the higher import duties shift demand to local sources, this increases total effective demand for local production. This would also add to inflationary pressures, the extent of which would depend on the ease with which supply could expand in the short run. While it is recognized that these pressures on prices will develop, it is contended that the advantages which accrue from (1) absorbing excess purchasing power through indirect taxes, and (2) the decreased need for the use of bank credit to finance the development program, will more than offset the higher prices.

Expenditure Policy

While the emphasis with respect to fiscal policy to combat inflationary pressures is placed on revenue policy, expenditure policy should not be ignored. The general principle which should be followed is to keep these as low as possible without crippling any of the essential services performed by the Government. It is imperative that all requests for new services and expansions of old services be scrutinised closely.

Government expenditures have increased much faster in recent years than have revenues.[1] This trend must be reversed if the inflationary pressures growing out of the development program are to be stemmed. This trend may be stemmed by holding expenditures at their current levels. Some expansion of functions may be realized as greater efficiency in government is achieved.

It is recognised that it will be difficult to follow these suggestions. The needs within the range of services normally supplied by the government sector are great. Demands for these and political pressure to supply them are also great. It is the duty of the Government, however, to limit its expenditures and demands on total resources to that which can be supplied at stable prices.

Foreign Economic Policy

It will be recalled that the pressure on the balance of payments will stem from several sources: (1) the direct needs of the development program, (2) the cost of induced imports, and (3) the loss of foreign exchange earnings.

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[1] Ordinary Budget revenues amounted to LL123 million in 1951 and LL209 million in 1957; an increase of 70 per cent. On the other hand, Ordinary Budget expenditures amounted to LL90 million in 1951 and LL192 million in 1957, or an increase of 111 per cent. Republic of Lebanon, Ministry of Finance, Budget Report for 1956 (Beirut: 1955), p. 15. Arabic. (for 1951 revenues and expenditures); Bulletin Statistique Trimestriel, IX (Deuxieme Trimestre, 1958), 48, 53 (for 1957 revenues and expenditures).

Before dealing specifically with those balance of payments problems it is important to set out a general foreign economic policy for Lebanon. It is believed that economic development and the realization of its benefits lie primarily in the development of a trading economy with a minimum of controls. This is not simply an argument for or against free trade. It stems from the existing conditions facing Lebanon. The country's present patterns indicate a very strong orientation towards services of all types closely geared to commerce and finance. This is Lebanon's position of comparative advantage and should be strengthened to the fullest extent.

> Most of the institutional set up [in Lebanon] especially in the field of banking is geared towards trade, and particularly international trade. . . Lebanon's economic vocation has been for centuries in commerce, and not in production.[1]

In formulating a foreign economic policy to cope with these pressures, it is necessary to deal with their causes. It is impossible to do much about the pressures exerted on the balance of payments as a result of (1) and (3) above. These are the direct effects of the development program and hence cannot be substantially altered. It may be possible to direct some domestic production from domestic consumption to export, thereby offsetting the decrease in other exports. In view of the expected increase in domestic demands, and the criteria that current levels of consumption not be decreased, this diversion is not likely to be substantial. The major objective of foreign economic policy, then, seems to be to keep induced imports to a minimum. To the extent that imports cannot be curtailed, then an alternative approach to the balance of payments problem would be to increase foreign exchange earnings.

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[1] Paul Klat, "The Future of Economic Development in the Arab World," Middle East Economic Papers, 1956 (Beirut: American University of Beirut, 1956), pp. 61-62.

Limiting imports

Inasmuch as the problem growing out of induced imports is the problem of total demand for foreign exchange exceeding the total supply, it is most appropriately approached in this way. Two suggestions for limiting the demand for foreign exchange are sometimes advanced. These are: (1) the alteration of foreign exchange rates, and (2) the adoption of a policy of quantitative and qualitative controls.

The first of these has the effect of making foreign goods dearer in terms of Lebanese pounds. It also makes the pound cheaper and tends to decrease the foreign costs of Lebanese goods. It is a policy which is most effective where a country is in a position to increase exports, or where a country is not heavily dependent on foreign sources of supply. Neither condition is applicable to Lebanon at the present time. Consequently, depreciation would probably contribute to inflationary pressures by increasing the costs of foreign goods and by increasing the foreign demand for Lebanese goods. It is not to be advocated as a means of dealing with balance of payments problems growing out of the development program.

Lebanon's past experience with exchange controls was not a happy one. A policy of qualitative controls, consisting primarily of limiting the import of luxuries, although a frequent proposal for most poor countries undertaking development, seems inappropriate for

Lebanon. This is true because of the peculiar economic organization of the country where tourism is a substantial earner of foreign exchange. A great portion of what is considered luxuries is in fact necessary for a flourishing tourist industry. It is erroneous to suppose that the only factor attracting tourists to Lebanon is its mild climate. There is a comparable climate in Northern Iraq. Nevertheless, the area is not attracting tourists because of the lack of facilities and comforts as well as inaccessibility. A policy of limiting imports, therefore, should aim at those goods that the Lebanese industries can produce at a cost and of a quality comparable to foreign goods.

Increasing the capacity to pay for imports

Having ruled out the depreciation and limitations of luxury imports, it is necessary to inquire into the possibility of meeting the demand for imports through increased earnings of foreigh exchange.

It may be asserted that in many areas of foreign trade increased earnings are definitely possible, provided that an effort is made by both Government and business. Only the areas of greatest immediate promise will be discussed.

Tourist trade.--Although this source of income has increased steadily, it is believed that the full potential of tourism has not yet been realized. It is quite possible that earnings from tourist trade can be made to double in a very short period of time. Several recommendations are in order here.

1. Conduct an educational campaign in Lebanon to point out the benefits of tourism and the duty of citizens toward tourists.

2. Conduct a publicity campaign abroad through consulates and embassies to attract foreign travelers.

3. Enact legislation designed to lessen the instances of price discriminations; e.g., taxi tariffs, restaurants, and hotel prices.

4. Legalize gambling.

5. Facilitate granting entry visas and simplify customs procedures.

6. Institute a campaign directed at improving the physical appearance of the cities and towns (street cleaning, refuse collections, and sanitation measures).

7. Provide for tourists the necessary facilities both to encourage their visit to Lebanon and prolong their stay: e.g., advertisement of major attractions, creation of tourist information centers, organized sight-seeing tours, the erection of signs and other guides for tourist movement.

Insurance.--It is within the realm of possibility to increase the earnings from maritime insurance inasmuch as Lebanon is equipped with banking and insurance facilities and personnel. This applies to imports and exports originating in Lebanon as well as in other countries of the area. Age-long experience in trade has brought about highly developed insurance activity and it is natural that in this line of endeavour the Lebanese are particularly efficient and have much to offer the surrounding countries.

Transit trade.--While Lebanon realizes substantial earnings from transit trade, future prospects of expansion look even brighter. A brief look at a Middle East map will show that Beirut is the Western gateway for no less than seven countries in the area. Of special importance here is the Port of Beirut and the Free Zone. The potentialities of both should be fully exploited. Illustrative of the strategic location of the Port of Beirut is the fact that the distance from Beirut to Bagdad is about 600 miles, yet shipments to Iraq via the Suez Canal and around the Persian Gulf entails an edditional distance of 3,000 miles. Furthermore, port, financial, and administrative facilities are by no means as adequate in Iraq as they are in Lebanon.

Recognizing the magnitude of economic development programs in Iraq and in many other countries in the Middle East, it behooves the Lebanese Government to realize actively its responsibilities in making this port truly representative of the interests of the countries concerned. The Port is privately operated by a French concern on a profit-making basis. This Port Company has been criticized for its excessive Port charges.[1] The Port Company profit-making activities should not be allowed to function independently of the economic interests of Lebanon.

With respect to the Free Zone, more areas should be made available to countries whereby operational and administrative activities can be undertaken.

To the extent that the success of the development program is tied, in part, to increased foreign exchange earnings, it is believed that by serving the interests of neighboring countries by the flow of goods through the Port of Beirut and the Free Zone, the interests of Lebanon might well be enhanced.

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[1] Proceedings of the First Annual Economic Conference, May 4-7, 1955 (Beirut: 1955), n.p. Arabic.

Summary

The structure of the banking system does not allow the use of the traditional instruments of monetary policy to be utilized during the period of construction. Furthermore, it is highly unlikely that the reforms suggested by the Keesing Report, which can lay the foundation for the effective creation of monetary policy, can be successfully instituted in the near future. However, it is possible to institute measures to restrict bank credit to the private sector while the financial requirements of the development program are being met. This may be done through the establishment of reserve requirements composed of securities and of cash. This reserve ratio aims in the present context at reducing the power of the banking system to create an excessive amount of credit. In the case under study, where the money supply will likely expand further under the impact of the development expenditures and the methods of financing such expenditures, such a curb on the capacity of banks to create credit gives an opportunity for the public sector to compensate by spending on development projects with less fear of inflationary results.

With respect to fiscal policy as a means of lessening the inflationary tendencies, it is certain that under the present socio-political setting, direct taxes hold very little promise during the period of construction. Indirect taxes, on the other hand, can be utilized as suggested to absorb new purchasing power if they are administered so as to have some degree of progressivity. It is suggested that the Government levy customs duties on the basis of free market value of imports instead of on the official value as done at present. In this way additional funds can be obtained from the well-to-do.

Bearing in mind that a relatively large proportion of the consumption of the well-to-do is met by imports, the demand for which can be regared as relatively price-inelastic, it seems correct to assume that progressive indirect taxes on the basis of the free market valuation of imports will result in additional revenues for the government. To the extent that lower income groups share further in the increased tariff duties, it may be said that this is unavoidable during the period of construction.

The main danger with respect to the balance of payments will lie in increased imports and decreased exports during the period of development. Depreciation and trade controls as a means of lessening imports are ruled out because it is believed that both violate the economic policy and interest of a relatively free economy. It is essential, therefore, that all possible avenues for an increase in earnings of foreign exchange be developed. Only the areas that hold the greatest promise in this respect have been discussed.

PART V. SUMMARY AND CONCLUSIONS

CHAPTER XII

SUMMARY AND CONCLUSIONS

Purpose and Justification of the Study

This study has focused attention on the feasibility and advisability of implementing Phase A of the Litani River and other projects in Lebanon. The questions that were given consideration in connection with the launching of these development projects in Lebanon have been: Are the projects necessary and desirable? What are the financial and physical requirements? Can these requirements be met? What effects--advantageous and disadvantageous--may result? What reforms, if any, are necessary to mitigate the unfavorable effects during the period of construction?

In general, Lebanon faces three related major economic problems: first, the maintenance and acceleration of the rate of economic growth; second, the achievement of a more equitable distribution of income not only among income classes but also among regions, especially between rural and urban sectors; and third, the provision of a stronger foundation for future growth by creating an environment favorable to greater productivity in agriculture and manufacturing. If this can be achieved, the country will be less dependent on external changes which are beyond control and which may very well strike deeply at the sources of revenue now relied upon to cover the recurrent deficits in the merchandise trade balance.

This study derives its justification from two major sources: First, it examines the contributions, summarized at a later point, of the Litani and of the other projects as means for alleviating the three major economic problems just cited. Second, it recognizes the institutional changes in the Lebanese economy necessary to undertake and cope with temporary dislocations arising from the implementation of the development program. In this connection, it may be noted that the Litani and related projects are the largest single investment cluster ever undertaken in the history of Lebanon. It is hoped also that the present study will be useful as a case study for other countries facing development problems.

Findings

In connection with the three major areas of investigation of this study, namely (1) the economic feasibility of the projects, (2) impact of the projects on the economy, advantageous and disadvantageous, and (3) tentative hypotheses for dealing with these resultant dislocations in the economy, certain findings have been made.

Feasibility

With respect to the feasibility of the project, it was found that potentially available supplies, financial and economic, are not altogether adequate to meet the requirements of the projects. Specifically, three critical problems in the area of physical requirements will have to be solved. These are labor, power, and cement supplies.

Labor.--While it might seem that sufficient labor could be obtained from the unemployed, investigation revealed that because of immobility and the shortage of skilled labor, the procurement of the necessary labor presents a problem. The shortage of skilled labor in the categories of construction workers, mechanics, and industrial workers has been noted by the U.S. Department of Commerce;[1] and the National Reconstruction Office, an official agency of the Lebanese Government, has reported widespread immobility among construction masons. In view of the fact that the construction of the projects requires a substantial amount of masonry, this situation presents a serious problem. The severity of the problem is evidenced by the experience of the National Reconstruction Office immediately after the 1956 earthquakes. In this case, efforts to attract the required number of masons were largely unsuccessful despite the fact that the pay scale more than doubled. Whether the development program considered in this study will succeed in procuring the necessary skilled labor may well depend on better methods of recruitment, including provisions for non-monetary incentives. It is conceivable that better recruitment techniques combined with a willingness and ability to import skilled labor may be adequate to staff the requirements of the projects.

Power.--Another obstacle to the construction of Phase A of the Litani Project is the lack of availability of power. No electric power is available at any of the construction sites. Power will have to be supplied from the Beirut System which is already over-taxed. In view of this situation, it was suggested that the thermal power plant and the transmission system, both part of the other projects, be given priority so that power may become available for the construction of the Litani Project.

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[1] U.S. Department of Commerce, Marketing Potentials in Lebanon (Washington: March, 1958), p. 5.

Cement.--Although Lebanon has been a traditional exporter of cement, cement supply presents another serious problem. This situation arises from the fact that the cement requirements for the projects exceed the amount normally exported. For example, total cement requirements are estimated at 300,000 tons, whereas the average exports for the years 1950-1956 amounted to about 30,000 tons. Further evidence of cement shortages is illustrated by the experience of the National Reconstruction Office during 1956-1957, when 55,000 tons were imported from Syria. It should be noted that cement requirements for housing reconstruction carried out by the National Reconstruction Office are considerably smaller than those of the development program. For example, local expenditures for housing reconstruction during the first year of operation amounted to LL20 million whereas the average annual expenditures for the program considered in this study amount to LL24 million with the largest expenditure being in the second year, viz., LL38 million.

Hence, it is apparent that the combined demand placed on the cement supply by the construction industry and by the development program is in excess of capacity. This indicates that considerable reliance on imports will be inevitable. A normally export industry, therefore, will turn into an import industry with the consequent shifts in the supply of and demand for foreign exchange.

Finance.--The total financial requirements of the development program amount to LL395 million of which LL187 million or 47 per cent is in local currency and LL208 million or 53 per cent in foreign exchange. Several methods of local finance were considered. Aside from the utilization of the resources of the Reserve Fund, including future loan-repayment to the Fund (LL71 million), it was recommended that the additional funds necessary (LL116 million) for the projects be secured from the BSL and from other commercial banks in the form of credit secured against the issuance of additional Treasury bills. It was shown that increased direct taxation as a means of financing development would not be politically or administratively feasible. Furthermore, the floatation of government securities to the public, other than banks, was not found to be feasible. The danger of inflation involved in utilizing previously accumulated reserves and in borrowing from commercial banks was recognized.

To meet the LL208 million, equivalent to about $64 million, required by the development projects, several methods of foreign finance were considered. Of the $64 million, a $27 million loan has been provided by the International Bank for Reconstruction and Development to cover the foreign exchange needs of the Litani. In addition, $6 million were allocated to the other projects by the U. S. Foreign Operations Mission to Lebanon. The chief sources of funds to meet the balance of the requirements, viz., $31 million, were found to be the utilization of part of the official gold and foreign exchange reserves and the uncommitted part of the oil revenues.

It was realized that the proposal to draw on the available foreign exchange and gold reserves, even though the present monetary rules concerning currency cover would not be violated, are cause for misgivings in some circles. These misgivings, it was pointed out, indicate an underestimation of the strength of the Lebanese economy. To overcome them the Government needs to make it clear that the utilization of part of the available gold and foreign exchange reserves will widen the economic base of the country and would strengthen rather than weaken the economy.

With respect to the second of these areas, namely the impact of the projects on the economy, a development program of the magnitude considered in this study will have far-reaching immediate effects on the economy quite aside from the hoped-for long-run achievements.

Long-run achievements

In regards to the long-run achievements, the analysis revealed that Phase A will bring 8,175 hectares under irrigation. This will lead to an increase of 16 per cent in land area under irrigation; an estimated increase of 2 per cent in total agricultural income; and an increase of about LL50 in the per capita income of the people residing in the area affected by irrigation. As for electric power, Phase A together with the thermal power plant included in the other projects will supply more than 500 million kwh of electricity annually. This will mean an increase of 200 per cent in the production of electricity over the 1956 figures and a decrease in cost of about 74 per cent. The provision of cheap and ample power through the Litani and through the rural electrification projects promises to alleviate power shortages both for the consumer and for industry.

A consideration of the extraordinary and continuing projects not specifically mentioned above has shown that they will result in many economic and social benefits. They will improve highway, air, and sea transportation. These improvements will assure greater internal cohesiveness and will improve facilities for a greater volume of tourism. Furthermore, they will insure an adequate supply of potable water to the rural areas that now rely on inadequate and often contaminated sources. The provision of this necessity will fulfill a dire need. It will improve the health standards and productivity of the villagers and truly represents an investment in social capital which will widen the base for economic growth.

In short, completion of the projects under consideration will undoubtedly broaden the economic base of Lebanon and greatly encourage increased investment. In turn, unemployment will be alleviated and available resources will be more fully utilized. Social conditions of the rural sector, until now neglected, will be vastly improved; and the expansion of agriculture and industry will render Lebanon less dependent on invisible earnings which are necessarily unstable.

Immediate effects

In the course of the years required for the completion of the development projects, many immediate changes will occur aside from those long-run effects which have already been summarized. For example, shifts in land utilization will take place. The size and the distribution of national product will be affected, and consequently, the levels of consumption and savings are likely to undergo changes. Finally, the price levels and balance of payments will also undergo changes. The effects of project expenditures on the above variables will now be summarized.

National product and its components.--With domestic expenditures on the program of LL187 million over the seven-year construction period, it was estimated that national product would increase by LL820 million or 53 per cent over the 1956 figures. This increase in national product will naturally result in an increase in the incomes of the various socio-economic groups. With the existing wide gaps in the distribution of income, it is fairly certain that the development expenditures amounting to only about 13 per cent of the national product, will not alter to any appreciable extent the present income distribution. This statement is made despite the fact that about one-half of the domestic expenditures will accrue to wage earners.

In regard to the increased income of the lower income groups, two factors indicate that this increased income will result in an increase in consumption and very little increase in savings. First, the standard of living of the lower income groups is below or near the subsistence level. As such, any increase in income will be absorbed almost wholly by increased expenditures on consumption. Second, since these expenditures are subject to taxation, total tax receipts will undoubtedly increase.

An analysis of the allocation of additional income between consumption and savings by the higher income groups led to two conclusions. First, this group already has a high standard of living and it accounts for substantial amounts of savings. Furthermore, keeping in mind the regressive nature of the tax system in Lebanon, the assumption that a smaller proportion of the additional income of this group will be transferred to the Government than that of the lower income groups is logical. It is also logical to assume that as additional incomes are obtained, positive savings will result in addition to increased consumption. The increase in consumption will probably add more to the demand for imports and the increase in savings may provide more funds for greater investment.

The increase in wages resulting from program expenditures will redound particularly to skilled workers, due to both shortages and immobility of such workers. However, in order to secure the required labor, it may be necessery to increase wages of all labor and institute an efficient recruitment program not only for skilled but also unskilled labor.

In the final analysis, enough skilled labor can be tapped only through importation. This will add strain on the balance of payments in addition to those caused by the deficiency of cement supplies which will have to be met by imports.

Induced demands.--It is necessary now to summarize the conclusions reached with respect to induced demands resulting from rising incomes. Due to the way in which it will be necessary to finance the development program, which is for the most part inflationary in character, competitive expenditures from the private sector are likely to occur. If this should happen, diversion of resources are bound to take place which will in turn exert additional pressure on the critical areas of cement and skilled labor. The end result of the expenditures on the program will be the intensification of demands for most goods; those that are directly required by the projects, and those that are induced by rising incomes.

Concerning the capacity of the economy to meet the induced demands for consumer goods, certain conclusions were reached. The generally backward conditions in agriculture and the prevailing food deficiencies (particularly cereals), make it necessary for Lebanon to import more than 40 per cent of its food requirements. Furthermore, industry in Lebanon--consisting mainly of enterprises producing consumer goods--is faced with a host of economic and technical problems. These problems range, for example, from marked dependence on imported raw materials and intermediate products to shortages of power and skills. As a result of the generally inelastic supply conditions in agriculture and industry, it is certain that the import sector will be more extensively relied upon to supply the induced demands. And to the extent that local production is increased, the importation of materials and equipment needed in this production must also increase.

Balance of payments and prices.--It has been concluded that the pressure on the balance of payments will come from several sources: (1) increased foreign exchange requirements for the importation of cement and skilled labor; (2) increasing requirements for imports associated with rising incomes; (3) temporary reduction in the exportation of cement due to the diversion of the supply for development purposes; and (4) temporary reduction in the exportation of olives due to the shift in land utilization from olives to citrus. (In connection with this last factor, it was shown that the plan to take olives out of production and plant citrus instead presents serious difficulties for the farmers involved. Furthermore, it was suggested that the Litani Authority explore the possibilities of irrigating for citrus development at higher elevation and leaving undisturbed the areas now planted in olives.)

The net effects of the above repercussions will be to induce an increase in the price levels. The pressure on foreign exchange will intensify the rise in prices. This is the more true since price indexes in Lebanon include the prices of imported commodities.

The direct expenditures on the projects, representing about 13 per cent of national product (1956), may not in themselves generate serious inflation. However, when considered in connection with the elimination of government surpluses, the method of financing through bank credit, and the concurrent demands of the public and private sectors, the total effect of all these forces must be regarded as seriously inflationary.

Policy Recommendations

In the absence of positive economic policies designed to ease the stresses and strains caused directly and indirectly by the development expenditures, it will be very difficult to maintain price stability. The effects of these expenditures particularly on levels of consumption show what a vital part should be played by monetary, fiscal, and trade policies. Such policies should be designed to limit the potential danger of an upward movement of prices. Such a movement would in turn threaten to decrease the flows of capital movements. Stemming this upward movement in prices could be accomplished by (1) absorbing a greater portion of additional income which otherwise would swell the flow of consumption expenditures and other expenditures, competing with the development projects for resources, and (2) limiting the pressure on the balance of payments.

Monetary policy

The detailed analysis of the monetary and banking system of Lebanon revealed that the dualistic nature of the BSL, as a private bank and as a central bank, and the absence of banking legislation do not allow the Government to use all the traditional instruments of monetary policy to counteract the inflationary tendencies of the development projects. Furthermore, the reforms suggested by the Keesing Report, also analyzed at length, will not likely be inaugurated during the period of construction. However, the institution of measures to restrict bank credit to the private sector by the establishment of reserve requirements composed of securities and of cash is possible. A reserve requirement of the nature indicated would reduce the possibility of excessive bank credit. This curb on excessive bank credit would afford an opportunity for the Government to undertake the projects with less fear of inflationary results.

Fiscal policy

The fiscal system's potential contribution in mopping up a greater portion of the increased incomes and in the formation of public savings depends on the flexibility of the system itself, on current expenditures policy, and on the possibility of increasing the tax burden.

It has been concluded that under the socio-political setting, direct taxes hold very little promise as a means of lessening the inflationary tendencies. On the other hand, it was suggested that indirect taxes can be administered so as to have some degree of progressivity. In this context, it was recommended that the Government levy customs duties on the basis of free market value of imports instead of the official value as done at present.

In this way, a significant portion of the new incomes of the well-to-do can be absorbed. Keeping in mind that a relatively large proportion of the consumption of the high income groups is met by imports, the demand for which can be regarded as relatively price-inelastic, it seems correct to assume that a higher import duty on luxuries will absorb additional purchasing power. Although the basic necessities such as cereals are now exempted from tariffs, it was recognized that lower income groups may share further in the general increase in the import tax. This may be unavoidable during the construction period.

In attempting to limit the inflationary effects during the construction period, current expenditure policies should not be ignored. Specifically, the accelerated increase in the ordinary budget expenditures which has taken place in recent years cannot be allowed to continue. It will be essential for the Government to scrutinize closely new requests for and/or expansion of existing services.

Trade policy

The increased direct and indirect expenditures connected with the development projects, in view of the production bottlenecks that exist in the economy, will mean that the supply of goods will originate mostly in the import sector. This will create pressures on balance of payments in addition to those connected with the reduction of exports. In order to render the balance of payments less vulnerable, it was suggested that special efforts be made toward increasing the earnings from foreign trade operations. Only the most promising areas were discussed. These included tourism, maritime insurance, and transit trade.

A policy of devaluation and/or direct import controls to alleviate the pressure on foreign exchange was shown to be inadvisable. This position was taken in view of the benefits derived from maintaining the free flow of goods and people.

If the recommendations set forth in this study (increasing the import tax, instituting monetary controls, limiting the expansion of current expenditures, and exerting special efforts toward increasing the earnings from foreign trade operations) are not taken seriously, the Government may find that the development expenditures are pressing against the limits set internally by the available resources and externally on the means to pay for imports, especially those induced by rising incomes. In that case, the implementation of the projects in their entirety, will have to proceed under inflationary forces with the consequences that are associated with inflation. On the other hand, a postponement of any of the projects would defeat the full realization of the future benefits of development.

The magnitude of the effects of developmental projects on the economy varies with existing economic, technical, social and political conditions. These conditions are far from constant. Therefore, the study of the economic impact of implementing development projects requires the continuing evaluation of changing situations.

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This dissertation was prepared under the direction of the chairman of the candidate's supervisory committee and has been approved by all members of that committee. It was submitted to the Dean of the College of Business Administration and to the Graduate Council, and was approved as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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